

## MEMORANDUM

TO: ZONING AND PLANNING COMMITTEE OF THE BOARD OF ALDERMEN

FROM: CANDACE HAVENS, INTERIM DIRECTOR OF PLANNING AND DEVELOPMENT  
ANNE PHELPS, SR. ENVIRONMENTAL PLANNER

DATE: FOR JUNE 14, 2010 WORKING SESSION

CC: BOARD OF ALDERMEN



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**PETITION #114** ■ ALD. YATES AND RICE request for reports from Conservation Commission and Board of Survey on compliance with condition of permits given to allow the development of the Laura Road subdivision

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### BACKGROUND

The Laura Road subdivision was created to create access to property between Rokeby Road and Irwin Road (a paper street behind a row of houses on Quinobequin Road); since there were impediments to the extension of Rokeby Road, access was created off Irwin Road instead. This required filling 6,600 square feet of wetlands, including bordering vegetated wetlands and flood zone and creating a "spur," Laura Road, off Irwin Road leading into the new housing development. Together Irwin Road and Laura Road were reduced to 3,910 square feet of fill and replacement wetlands were created adjacent to existing wetlands behind the houses on Quinobequin Road. At the request of Aldermen Yates and Rice, the following documents related the previous environmental reviews of this subdivision are provided for reference:

*ATTACHMENT A:* Conservation Commission Order of Conditions and related maps or other reference materials

*ATTACHMENT B:* Map showing location of replicated wetlands

*ATTACHMENT C:* Copy of memos from Helen Heyn dated April 28, 1994 and July 22, 1994

*ATTACHMENT D:* Notice of Intent dated January 14, 1994

*ATTACHMENT E:* Excerpts from Sections 22-22 and 30-18 on Newton Code

An assessment of the current conditions of wetlands and description of their effectiveness in storing water during the March floods is not currently available.

**Form 5**

City/Town NEWTON

Applicant Nicholas Heras, Jr.

Commonwealth  
of Massachusetts

Order of Conditions  
Massachusetts Wetlands Protection Act

And Pursuant to Floodplain/Watershed Protection Provisions in City of Newton  
Revised Ordinances, Section 22-22.  
From NEWTON CONSERVATION COMMISSION Issuing Authority

To Mr. Nicholas Heras, Jr. Irwin Road Realty Trust  
(Name of Applicant) (Name of property owner)

Address P.O. Box 67141 Chestnut Hill, MA 02167 Address P.O. Box 67141 Chestnut Hill, MA 02167  
This order is issued and delivered as follows: Chestnut Hill, MA 02167

☐ by hand delivery to applicant or representative on \_\_\_\_\_ (date)  
☒ by certified mail, return receipt requested on October 12, 1994 (date)

This project is located at Irwin/Rokeby Road, Waban, MA 02168 LOTS 8,9,10,16,17,18, 1  
(Proposed Lots 1,2,3,&4 Laura Road, Waban, MA 02168) 2  
The property is recorded at the Registry of Middlesex (South)

Book 23263 Page 177

The Notice of Intent for this project was filed on January 14, 1994 (date)

The public hearing was closed on September 22, 1994 (date)

## Findings

The CONSERVATION COMMISSION has reviewed the above-referenced Notice of Intent and plans and has held a public hearing on the project. Based on the information available to the COMMISSION at this time, the COMMISSION has determined that the area on which the proposed work is to be done is significant to the following interests in accordance with the Presumptions of Significance set forth in the regulations for each Area Subject to Protection Under the Act (check as appropriate):

<input type="checkbox"/>	Public water supply	<input checked="" type="checkbox"/>	Flood Control	<input type="checkbox"/>	Land containing shellfish
<input type="checkbox"/>	Private water supply	<input checked="" type="checkbox"/>	Storm damage prevention	<input type="checkbox"/>	Fisheries
<input checked="" type="checkbox"/>	Ground water supply	<input checked="" type="checkbox"/>	Prevention of pollution	<input checked="" type="checkbox"/>	Protection of Wildlife Habitat

Total Filing Fee Submitted \$1,475.00 State Share \$750.00  
(1/2 fee in excess of \$25)

City/Town Share \$750.00

Total Refund Due \$ \_\_\_\_\_ City/Town Portion \$ \_\_\_\_\_ State Portion \$ \_\_\_\_\_  
(1/2 total) (1/2 total)

Therefore, the Commission hereby finds that the following conditions are necessary, in accordance with the Performance Standards set forth in the regulations, to protect those interests checked above. The Commission orders that all work shall be performed in accordance with said conditions and with the Notice of Intent referenced above. To the extent that the following conditions modify or differ from the plans, specifications or other proposals submitted with the Notice of Intent, the conditions shall control.

#### General Conditions

1. Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this order.
2. The order does not grant any property rights or any exclusive privileges; it does not authorize any injury to private property or invasion of private rights.
3. This order does not relieve the permittee or any other person of the necessity of complying with all other applicable federal, state or local statutes, ordinances, by-laws or regulations.
4. The work authorized hereunder shall be completed within three years from the date of this order unless either of the following apply:
  - (a) the work is a maintenance dredging project as provided for in the Act; or
  - (b) the time for completion has been extended to a specified date more than three years, but less than five years, from the date of issuance and both that date and the special circumstances warranting the extended time period are set forth in this order.
5. This order may be extended by the issuing authority for one or more periods of up to three years each upon application to the issuing authority at least 30 days prior to the expiration date of the order.
6. Any fill used in connection with this project shall be clean fill, containing no trash, refuse, rubbish or debris, including but not limited to lumber, bricks, plaster, wire, lath, paper, cardboard, pipe, tires, ashes, refrigerators, motor vehicles or parts of any of the foregoing.
7. No work shall be undertaken until all administrative appeal periods from this order have elapsed or, if such an appeal has been filed, until all proceedings before the Department have been completed.
8. No work shall be undertaken until the Final order has been recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land upon which the proposed work is to be done. In the case of registered land, the Final order shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed work is to be done. The recording information shall be submitted to the Commission on the form at the end of this order prior to commencement of the work.
9. A sign shall be displayed at the site not less than two square feet or more than three square feet in size bearing the words,  
"Massachusetts Department of Environmental Protection,  
File Number 239-274"
10. Where the Department of Environmental Protection is requested to make a determination and to issue a superseding order, the Conservation Commission shall be a party to all agency proceedings and hearings before the Department.

11. Upon completion of the work described herein, the Applicant shall forthwith request in writing that a Certificate of Compliance be issued stating that the work has been satisfactorily completed.
12. The work shall conform to the following plans and special conditions:

#### Plans

<u>Title</u>	<u>Dated</u>	<u>Signed and Stamped by</u>	<u>On File with</u>
"Definitive Subdivision Plan"	8-2-94	Otte & Dwyer, Inc. P.L.S.	<u>Conservation Commission</u>
"Grading Plan"	9-21-94	H. W. Moore Associates, Inc. Engineers & Planners	<u>Inspectional Services Dept.</u>
"Plan Profile"	9-21-94	H. W. Moore, Inc.	<u>Engineering Department</u>
"Details #1"	9-21-94	H. W. Moore, Inc.	<u>Public Works Department</u>
"Details #2"	9-21-94	H. W. Moore, Inc.	<u>and with the Department of Environmental Quality Engineering in Woburn</u>

#### Special Conditions

13. Before commencement of any other work on the Project 239-274 site, a siltation fence and any necessary hay bales shall be erected between the bordering vegetative wetland and the construction area in order to protect the resource area and confine refuse and other materials within the construction area.
14. The Conservation Commission Office shall be notified at 552-7135, extension 112, that the siltation fence installation and hay bales cited in Condition #13 are ready for inspection before commencement of any other work on Project 239-274.

(Leave Space Blank)

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15. Applicant shall apply to the U. S. Army Corps of Engineers for a determination whether the Corps Engineers has jurisdiction over the project. In the event jurisdiction exists and the Corps of Engineers imposes legally enforceable conditions which require an amendment to the Notice of Intent and Order of Conditions, the Applicant shall file for an amended Order. The Applicant shall file the Corps of Engineers' responses with the Conservation Commission.
16. Pursuant to Condition #3 of this Order, no work shown on the Definitive Subdivision Plan and the cited plans within Condition #12 shall commence until the said plans have the written approval of the Board of Survey and of the City Engineer.
17. Pursuant to Condition #3 of this Order, only the intent of Applicant's submittal of the Cross Section Supplements to the Subdivision Plan of Irwin and Laura Roads are approved by the Conservation Commission.
18. Project 239-274 is subject to the replication and restoration procedures and the Applicant must submit a detailed wetland replication plan for approval by the Conservation Commission and the City Engineer prior to the commencement of any work on the site. The wetlands replication plan shall include a detailed tree inventory within the Bordering Vegetative Wetland and any areas to be disturbed by the Applicants' project. Said wetlands replication area shall be completed, all dead and damaged trees shall be removed, and the area altered by the previous developer shall be restored, prior to construction of the roadway.
19. Prior to commencement of any work on the Project 239-274 site, Applicant shall have a registered land surveyor locate and stake the right-of-way. Applicants shall locate the paved roadway, retaining walls and supporting fill or excavation solely within the right-of-way of the proposed Irwin and Laura Roads, except where the adjoining land is the Applicant's, and so long as said fill or excavation is reflected in the Plans filed with the Conservation Commission and cited in this Order of Conditions.
20. This Order is applicable to the three proposed building Lots 1, 2, and 3 cited in the subdivision plans, provided that the Applicant submits final site plans to the Conservation Commission for review and approval prior to construction of each dwelling. The site plans shall include individual drywells and/or french drains for all roof downspouts.

21. Applicant shall perform a camera survey under the supervision of the City Engineer of the interior of the existing City storm drain pipe or culvert connecting between Rokeby Road and the Charles River to determine its condition. If the pipe's condition or segments thereof do not satisfy the City Engineer, Applicant shall repair or replace the pipe or segments thereof to the City Engineer's satisfaction. The Applicant shall promptly file written reports with the City Engineer of the results of the camera survey and of any repairs made to the pipe. The City Engineer shall file his report with the Conservation Commission stating that the camera survey or repairs have been done to his satisfaction. The camera survey and, if necessary, any repairs to and replacement of portions of the pipe shall take place prior to commencement of any construction which would channel new water into the pipe. Prior to and during construction, Applicants shall provide appropriate barriers so that no silt shall enter the pipe.
22. Upon completion of the catch basin inlets in Irwin and Laura Roads, said inlets shall be protected by securely staked hay bales to minimize sedimentation in the Irwin and Laura Roads drainage system.
23. Applicant may grant, with all three parties' concurrence, an easement to the City of Newton or a private easement to William and Barbara Beardslee and their successors and assigns (hereinafter, "Beardslees") for the benefit of the Beardslees so the Beardslees or the City, at the Beardslees' expense, may construct and locate a sewer pipe within said easement to connect the Beardslee residence at #89 Ridge Road southerly to the sewer presently in Rokeby Road or the extension of the sewer within the proposed roadway. Said easement, if accepted by the Beardslees or the City of Newton, shall run in a southerly direction along the westerly lot line of Lot 3 to the sewer in the existing or proposed roadway, whichever may be more convenient. The width of the easement shall conform to the fifteen-foot requirement of the sideyard setback area in Section 30-15 of the Newton Zoning Ordinances.

The Beardslees shall provide the City Engineer and the Conservation Commission with a plan showing said easement in the event of such acceptance. Construction of the sewer within said easement shall be so timed as to take place when the utilities and roadway construction are being performed by the Applicant to minimize any impact upon wetlands, and said construction of the sewer shall be subject to the applicable provisions of G.L. Ch. 131, s. 40 and the Regulations thereunder. All expenses related to said sewer serving the Beardslees, including, but not limited to survey, plans and construction, shall be the Beardslees'.

24. For the purposes of flood control and wetland preservation, the Applicant shall provide a permanent bar to any development of the wetlands portion of Lot 3 and all of Lot 4. This would be accomplished by grant to the City of Newton, a conservation restriction pursuant to G.L. Ch. 184, s. 32. If the City of Newton refuses to accept, or if the Executive Office of Environmental Affairs refuses to approve said Conservation Restriction in perpetuity, then a Conservation Restriction pursuant to G.L. Ch. 40, s. 8(c) shall be granted to the Newton Conservation Commission or a non-statutory conservation restriction shall be placed on the deeds of Lot 3 and Lot 4.
25. To control erosion and sedimentation on the Project 239-274 site, all disturbed slopes outside building perimeters of the three proposed house lots shall be protected if they are to be left without vegetation treatment or other permanent stabilization longer than fifteen (15) calendar days.
26. After completion of fine-grading and final wetlands replication work and any other landscape work all drain structures constructed in Irwin and Laura Roads shall be finally cleaned of all debris and left in full working condition.
27. For the protection of vegetation on the Irwin Road subdivision, no salt or other deicing chemicals shall be applied to paved areas. This condition shall not expire at the end of the Project 239-274 work nor with the issuance of a Certificate of Compliance for said work.
28. All Project 239-274 materials not to remain on Applicant's premises shall be removed from said premises and disposed of in a legal manner.
29. A detailed drawing of all retaining walls shall be submitted to the City Engineer for review and approval.
30. Issuance of this Order of Conditions does not preclude the dimensional requirements of the Zoning Ordinance including Section 30-5 (b) (4) for special permit requirements for a change in grade of more than three feet, nor does this Order preclude any controls or rights of the Metropolitan District Commission with regards to Quinobequin Road or the Charles River Reservation.
31. The foregoing conditions notwithstanding, the Applicant shall see that throughout the construction period for Project 239-274, all measures necessary to prevent any damage or alteration to the existing bordering vegetated wetland or floodplain not detailed in the submitted plans are taken and should any damage occur during the course of the work on the Project 239-274 premises, the Applicant shall be responsible for and bear the full cost of restoration of the wetland or floodplain to the satisfaction of the Conservation Commission and the Engineering Department.

32. During the construction period and prior to issuance of a Certificate of Compliance, members and agents of the Conservation Commission shall have the right to inspect the Applicant's Project 239-274 work to evaluate compliance with the herein cited PLANS and with these conditions.
33. The Conservation Commission shall be given the name and telephone number of Applicant's superintendent, or clerk of the works, for Project 239-274.

Issued By Newton

Conservation Commission

Signature(s) [Signature][Signature]

For the Newton Conservation Commission:

This Order must be signed by a majority of the Conservation Commission.

Wetlands/Floodplain Administrator

On this 12th day of October, 19 94, before mepersonally appeared Robert D. Merryman, to me known to be the

person described in and who executed the foregoing instrument and acknowledged that he/she executed the same as his/her free act and deed.

[Signature]  
Notary PublicFebruary 2, 2001  
My commission expires

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land upon which the proposed work is to be done, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the Department of Environmental Protection to issue a Superseding Order, providing the request is made by certified mail or hand delivery to the Department, with the appropriate filing fee and Fee Transmittal Form as provided in 310 CMR 10.03(7), within ten days from the date of issuance of this determination. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and the applicant.

Detach on dotted line and submit to the Newton Conservation Commission prior to commencement of work.

To Newton Conservation Commission & Inspectional Services Dept. Issuing Authority

Please be advised that the Order of Conditions for the project at Irwin/Rokeby Roads, Waban, MA 02168  
Sec. 55, Block 38, Lots 8, 9, 10, 16, 17, 18, & 21  
 File Number 239-274 has been recorded at the Registry of Middlesex (South) and

has been noted in the chain of title of the affected property in accordance with General Condition 8 on

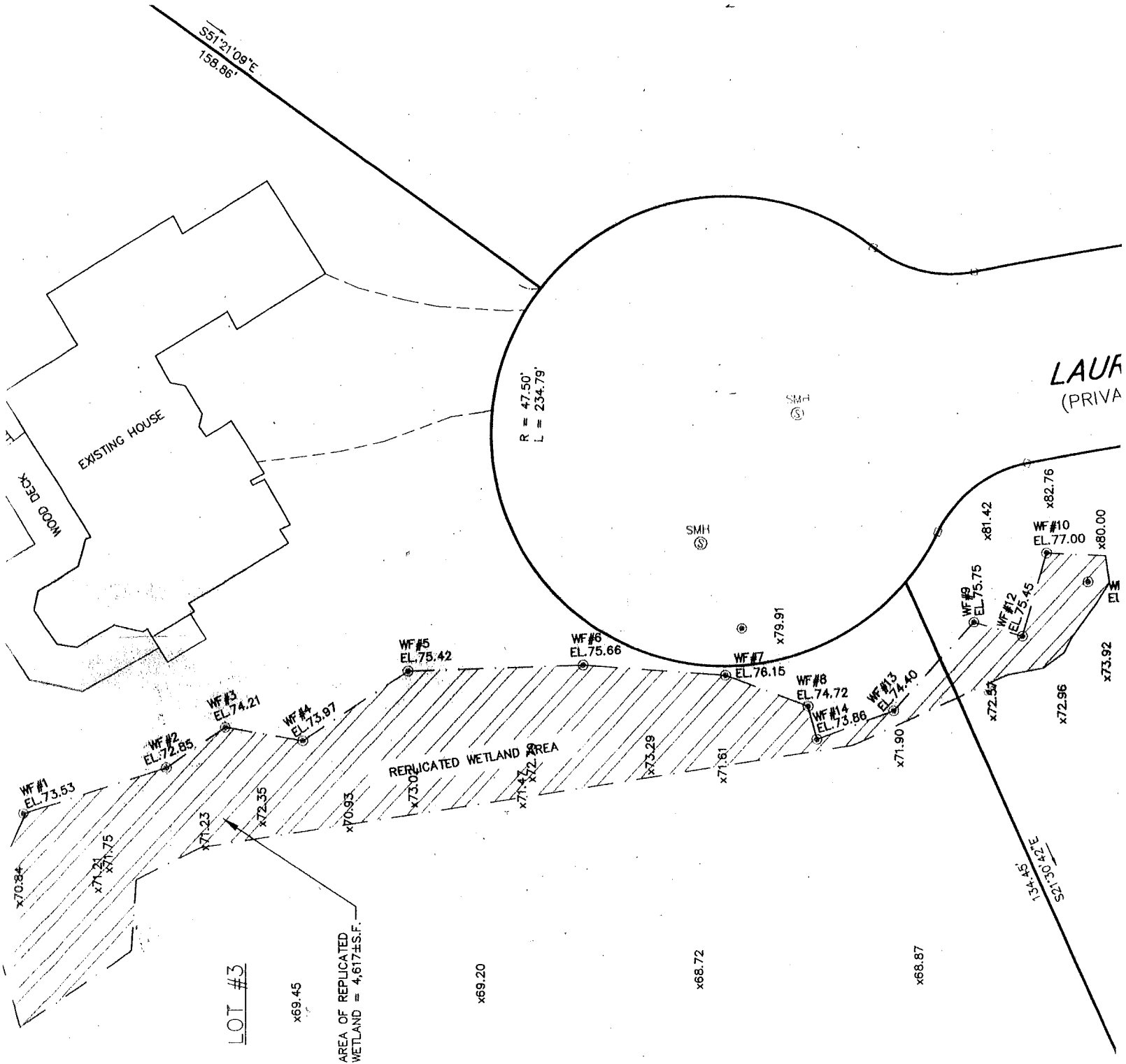
October 28, 19 94.

If recorded land, the instrument number which identifies this transaction is 543

If registered land, the document number which identifies this transaction is \_\_\_\_\_

Signature Stephen J. Bushbinder, Attorney for Applicant

# Location of Replicated Wetlands



*Helen Heyn Memo A*

ATTACHMENT C

MEMORANDUM

DATE: April 28, 1994

TO: Conservation Commission and Planning Board Acting As A Board of Survey.

FROM: Helen A. Heyn, Associate Member, Conservation Commission

SUBJECT: PROJECT #239-274 - PROPOSED LAURA ESTATES SUBDIVISION.

Project 239-274 should be denied by the Conservation Commission, thus providing the Planning Board the opportunity to require Hera Development Corporation to modify its subdivision plan to avoid construction of Irwin Road across the Charles River floodplain and surrounding vegetated wetland.

Conservation Commission denial of Project 239-274 would afford the Planning Board the opportunity to recommend permanent discontinuance of the lower wetland portion of the Irwin Road paper street and the portion of the Rokeby Road paper street east of its intersection with the Irwin Road paper street.

Given denial of Project 239-274, Hera Development Corporation would have the option of negotiating an agreement with the Rokeby Road residents to permit construction of Rokeby Road easterly with a hammerhead turnaround in order to build one or two houses on the north (uphill) side of Rokeby Road --

IN EXCHANGE FOR:

1. Hera Development Corporation's grant in trust in perpetuity to the City of Newton, a General Laws Chapter 184 Conservation Restriction on all of its land not required for house and road construction.
2. Hera Development Corporation's removal from its premises, all dead and uprooted vegetation and removal of all damaged portions of live vegetation.
3. Hera Development Corporation's leveling, finish grading, and replanting of at least two existing mounds of wetland soil and plants illegally excavated and stockpiled by the Valentino Tocci firm in 1987.

Construction of Irwin Road should be denied by the Conservation Commission because it would violate the purposes and provisions of the Newton Floodplain/Watershed Protection Ordinance, Section 22-22.

The Section 22-22 provisions are more restrictive than those of the Wetlands Protection Act, General Laws, Chapter 131, Section 40 and its Regulations. Therefore the provisions of Section 22-22 control alterations on the Laura Estates property.

Section 22-22 B. 1. does not permit filling, dumping, excavation, removal or transfer of gravel, sand, loam or other materials which will restrict floodwater flow or reduce floodwater storage capacity.

Section 22-22 B. 2. (d) does not permit road construction for either permitted or existing uses within a Floodplain/Watershed Protection District.

The Applicant's plan for construction of Irwin Road from Quinobequin Road northerly toward Waban Avenue would create a continuous causeway, or dam, across the Laura Estates vegetated wetland/floodplain.

Although the plan for the Irwin Road causeway shows culverts and gutters discharging stormwater southerly toward Quinobequin Road and the Charles

River, the causeway/dam would restrict, or at least retard, flow of water through it.

The Irwin Road restriction of stormwater flow would create a nuisance (i.e., flooding) which would interfere with use of the abutting property at #386 Quinobequin Road and with use of the property at #360 Quinobequin Road and possibly other properties west of #360, when water from the Charles River crosses Quinobequin Road and flows behind #360 and #386, but would be unable to flow easterly through the Irwin Road causeway and retaining wall.

As the owner of #386 Quinobequin Road stated on February 7, 1994, Irwin Road and its retaining wall would "put him in a swamp". His garage (constructed after 1953), could not comply with the City's Section 30-17 Ordinance requiring the garage floor grade to be 6 inches above the back edge of the Irwin Road sidewalk.

The Irwin Road causeway/dam bisects the wetland/floodplain so that the Applicant's proposed compensatory flood storage site west of Irwin Road along the City's Main Drain Easement, is separated from the wetland/floodplain on the east side of Irwin Road.

Therefore the proposed compensatory flood storage site does not have an unrestricted hydraulic connection to the eastern portion of the wetland being affected by the Irwin Road construction and does not comply with Section 22-22 B. 2. (a) of the Floodplain/Watershed Protection Provisions.

The Applicant's Notice of Intent reference to the 6-inch PVC drain does not mention that the Conservation Commission permitted the Metropolitan District Commission to install it in 1985 as an emergency measure to prevent standing water and ice formation on this section of Quinobequin Road.

The Applicant's Notice of Intent does not mention flooding from the Charles River over Quinobequin Road and whether any of Applicant's proposed discharge water off his proposed East and West Watersheds could be accepted by the River at a 100-year-flood stage.

On January 27, 1994, the Applicant's engineer stated that it takes 4 days for the Charles River to pass a flood crest at the Quinobequin Road reach.

The New England Division U.S. Army Corps of Engineers Memorandum of August 25, 1969 <sup>could not find</sup> reports differently on the effect of the March 1968 flood on the Metropolitan District Commission's flood control project following the 1955 Hurricane Diane Flood, on the 2 miles of Charles River channel from the Kendrick Street bridge to the Silk Mill Dam at Newton Upper Falls.

The MDC flood control project included installation of a movable (i.e., bascule) crest on the Silk Mill Dam and on the Mother Brook outlet from the Charles River along Route 1 in Dedham.

The MDC's 2-mile-long channelization project straightened the River banks and smoothed the River bottom -- thus creating a swiftly-running gutter from the 1,029-acre Great Plain (Natural Valley Storage Area B) in Newton, Needham, West Roxbury, and Dedham -- to the Silk Mill Dam.

During the March 1968 Flood, the Corps of Engineers found that the post-1955 channelization of the River reduced the natural flood plain storage in the Great Plain by 5,000 acre feet. It caused the Great Plain to empty faster at the Kendrick Street bridge.



This caused greater flows downstream immediately after the March 1968 rains -- not 4 days after. Twelve hours after the storm, the 1968 discharge at the Silk Mill Dam was 1,740 cubic feet per second compared with an estimated 1,090 cubic feet per second flow in the 1955 Hurricane Diane.

Similarly, Mother Brook had a flow of 930 cubic feet per second flow in 1968 compared with 550 cubic feet per second in 1955 before its bascule crest was added to its dam. These higher discharges had an adverse effect in increasing the early flows (i.e., discharges) in the lower Charles and Neponset Rivers.

Runoff from the Upper Charles Watershed crests about 4 days after a rainstorm. The rate of rise is so gradual during the 48-hour period preceding the crest that the loss in the Great Plain storage has little effect on the maximum total outflow at the Kendrick Street bridge.

However, downstream of the Silk Mill Dam, the effect is quite different.

On March 21, 1968, the bascule gate at the Silk Mill Dam was lowered for the first time since its construction, to prevent the high water caused by the channelization project from inundating the floor of the Mill Falls Restaurant.

Lowering the bascule gate, which the Metropolitan District Commission did with considerable difficulty, saved the Restaurant floor, but caused the discharge over the Dam to increase rapidly from 2,000 to 2,410 cubic feet per second and caused the River stage at Wellesley Office Park, across from the proposed Irwin Road construction, to rise about half a foot to USGS elevation 65.2 feet above mean sea level, or 71.0 feet MSL (Newton Base).

These 1968 flows were experienced with a 5+ inch rainfall during a week-long storm on a frozen watershed, <sup>could not find.</sup> as compared with a 12-inch rainfall in the Newton area (Turner Report 1956) during the 48-hour Hurricane Diane. See the dramatic Newton City Hall Hurricane Diane photos on exhibit at the Jackson Homestead.

With a 12-inch Diane-type rainfall and the channelized River and the Silk Mill Dam's movable crest and a frozen watershed, the reach of the River floodplain between the Silk Mill Dam, the Circular Dam (at Route 9), and the Cordingly Dam (Lower Falls) are already vulnerable to flooding and should have no further grade and vegetation alterations whatsoever.

In fairness to past and future Wetlands/Floodplain Applicants in Newton and in fairness to the National Flood Insurance Program participants, the Conservation Commission should deny Project 239-274.. *H. Nye*

CC: Conservation Commissioners Richard Staley, Rachel Freed, Alan Green, Roger Matthews, Eric Reenstierna, Norman Richardson, Ira Wallach.  
Robert Merryman, Wetlands/Floodplain Administrator  
Planning Board Members Basil Tommy, David Banash, Alan Dolmatch, Joyce Moss, Malcolm Flash, Terence McCourt, Ernest Siciliano, Roger Wyner, Audrey Cooper.  
Eugene A. Bober, Director, Planning and Development Department  
Susan Glazer, Planning and Development Department  
Paul W. Giunta, City Engineer  
Acting Mayor Thomas Concannon  
Danial M. Funk, City Solicitor  
Aldermen Brian Yates, Christine Samuelson, Paul Coletti, Richard McGrath  
Nicholas Heras, Hera Development Corp.  
Eric Hall, Charles River Watershed Association Director  
Peter Kastner, Newton Conservators, Inc.  
Ernest Grable, M.D., 386 Quinobequin Road  
Paul and Dena David, 60 Rokeby Road  
Justine Kent Uritam, CRWA Land Conservation Service Bureau

original - 10004

Helen Heyn Memo "B"

Bob Hold

MEMORANDUM

DATE: July 22, 1994  
TO: Conservation Commission and Planning Board Acting As A Board of Survey.  
FROM: Helen A. Heyn, Associate Member, Conservation Commission  
SUBJECT: PROJECT #239-274 - PROPOSED LAURA ESTATES SUBDIVISION, IRWIN ROAD OFF QUINOBEQUIN ROAD, WABAN.

Since my April 28, 1994 Memorandum recommending denial of the Project 239-274 Irwin Road subdivision, the Land Court in Boston has ruled that no legal right exists to extend Rokeby Road easterly into land presently owned by the Hera Development Corporation.

The possibility of such a Land Court ruling was the reason Hera Development Corporation submitted to the Conservation Commission a preliminary subdivision plan showing construction of Irwin Road on fill across the wetland/floodplain on the north side of Quinobequin Road to provide access to three houses which Hera proposes to build on the lower portion of the gravel ridge which slopes steeply (15% - 25%) south behind the houses which front on Waban Avenue.

In order to prevent any increase in existing flood hazards to the four residential properties on Quinobequin Road bordering the Hera property, I continue to urge the Conservation Commission to deny Project 239-274 for the reasons I stated in the attached April 28, 1994 Memorandum.

During the 23 years since adoption of the City's Floodplain/Watershed Protection Ordinance in 1971, neither the Board of Aldermen nor the Conservation Commission have interpreted the ordinance as permitting road construction in a floodplain/wetland area.

Such an interpretation, creating frontage for development bordering such road, would be contrary to and would defeat the intent and purpose of the ordinance.

Some examples of permitted Newton projects which observed the prohibition of roads in floodplain/wetland areas are the Staniford Street condominium, the Nahanton Woods condominium, the Ledgebrook condominium, The Gables condominium, the Winchester Park condominium, the Buswell Park subdivision, the Hollywood Drive subdivision.

Admittedly these projects were able to find legal access on upland which avoided alteration of floodplain/wetland areas.

The Land Court decision has eliminated the only upland access to the Hera property and increases the urgency for Conservation Commission denial of Project 239-274.

Such denial would enable the Planning Board and the Executive Department to pursue the initiative which the City began for the Hera (formerly Tocci) property and the abutting Southwick property in the 1981 Open Space Plan (pp.97-98) and continued in the 1989 Recreation and Open Space Plan (pp.67-68).

could not find

THIS WHOLE PROPERTY?

Both plans recommended "acquisition by City of Newton, by gift, by purchase, or by other negotiation of a Conservation Restriction in perpetuity on the following whole, or less-than-whole parcel: Waban Avenue and Irwin Road - Conservation Restriction on steep, wooded (Beech trees predominating) slope bordering on Charles River floodplain."

The vacant upland and wetland included in this recommendation comprise approximately 5 acres. Most of the upland has 25%, or greater, slope and was included with the wetland/floodplain property in the Conservation Restriction recommendation because of the 1955 Hurricane Diane flooding in the Quinobequin Road valley was caused not only by the Charles River, but also by the deluge from the Waban Avenue ridge.

When several Rokeby Road and Carlton Road residents attended the October 11, 1984 meeting of the Conservation Commission and expressed their concern about survey work in progress off the eastern end of Rokeby Road, a private way, the Conservation Commission voted 4 - 0 (Francis S. Wright, Peter T. Damon, Thelma E. Fleishman, Richard M. Staley) to send the landowners (Valentino Tocci and Francis Southwick) copies of the 1981 Open Space Plan with October 25, 1984 cover letters concerning the Conservation Restriction recommendation for their vacant lots.

The landowners never responded to the 1984 communications.

In 1987 Valentino Tocci began his unauthorized work in the Irwin Road paper street and wetland. His work was stopped by a Conservation Commission-issued Enforcement Order under the Wetlands Protection Act and the Newton Floodplain/Watershed Protection Ordinance.

Until the recent Land Court decision, there was uncertainty whether Rokeby Road could be extended for a three-house subdivision on the upland portion of the Tocci property as permitted in 1990 by the Conservation Commission and the Board of Survey, provided that a legal right to extend Rokeby Road could be established.

The Conservation Commission and the Board of Survey had determined that the Rokeby Road access was the only one permissible under the City's Floodplain/Watershed Protection Ordinance and was the access which would cause the least increase in flooding on the four low-lying properties abutting the southern edge of the Tocci (now Hera) property.

Building permits for the proposed three houses on the Rokeby Road extension would, in addition, have required approval by the Board of Aldermen for the three-foot-plus grade changes which building on the steep Waban Avenue ridge would require.

The Rokeby Road residents petitioned the Land Court in Boston to determine whether Rokeby Road could legally be extended.

The Tocci property was sold at auction in 1992 to Shawmut Bank. Although the Rokeby Road residents bid on purchase of the Tocci property for conservation purposes, the Bank sold the property to Hera Development Corporation for \$140,000.00 for the seven lots (Section 55, Block 38, Lots 8, 9, 10, 16, 17, 18 and 21).

The Land Court's elimination of the less environmentally damaging Rokeby Road extension, behooves the City to act now to protect the existing residences along Quinobequin Road by:

- (1) Purchase of the right to a Rokeby Road extension of sufficient length for one or two residential lot frontages and a hammerhead turnaround;
- (2) Discontinuance of the remaining Rokeby Road paper streets and discontinuance of the Irwin Road paper street;
- (3) Acquisition of ownership of the two landowners' remaining vacant lots for conservation and flood control purposes, to be called the Arthur Morris Southwick Conservation Area. This would leave Section 55, Block 39, Lot 18, 1,170 sq. ft. on Quinobequin Road in Metropolitan District Commission ownership and would leave Section 55, Block 39, Lot 37, 56,281 sq. ft. and its existing buildings on Waban Avenue in the Southwick heirs' ownership.

*What about  
access for the  
Southwick heirs  
COMPLETE DONALD*

NEED TO  
BE  
QUANTIFIED

The interests of flood control, storm damage prevention, prevention of pollution, protection of wildlife habitat, as well as the purposes of the Floodplain/Watershed Protection Ordinance will best be served by actions such as the foregoing.

Thursday, July 28, 1994, 8:30 P.M. in Room 209 City Hall the Conservation Commission will continue its public hearing on Project 239-274.- *Allen Hays*

Attachments

CC: Conservation Commissioners Richard Staley, Rachel Freed, Alan Green, Roger MATTHEWS, Eric Reenstierna, Norman Richardson, Ira Wallach. Robert Merryman, Wetlands/Floodplain Administrator  
Planning Board Members Basil Tommy, David Banash, Alan Dolmatch, Joyce Moss, Malcolm Flash, Terence McCourt, Ernest Siciliano, Roger Wyner, Audrey Cooper.  
Eugene A. Bober, Director, Planning and Development Department  
Susan Glazer, Planning and Development Department  
Paul W. Giunta, City Engineer  
Acting Mayor Thomas B. Concannon, Jr.  
Daniel M. Funk, City Solicitor  
Aldermen Brian Yates, Christine Samuelson, Paul Coletti, Richard McGrath, R. Lisle Baker.  
Commissioner M. Ilyas Bhatti, Metropolitan District Commission  
Julia O'Brien, Director of Planning, Metropolitan District Commission  
Eric Hall, Charles River Watershed Association, Inc. Director  
Justine Kent Uritam, CRWA Land Conservation Service Bureau  
Peter Kastner, President, Newton Conservators, Inc.  
Nicholas Heras, Hera Development Corp.  
The Southwick Family, 176 Waban Avenue, Waban  
Ernest and Cecily Grable, 386 Quinobequin Road, Waban  
Edith L. Cohen, 380 Quinobequin Road  
George and Kay Pike, 370 Quinobequin Road  
George and Edna Moody, 360 Quinobequin Road  
Anna, Ethel and William Sprow, 420 Quinobequin Road  
Mary Brown Parlee, 430 Quinobequin Road  
Joseph A. Bauer, Jr. 430 Quinobequin Road  
Eugene and Judith Kohn, 518 Quinobequin Road  
Beatrice M. Flaschner, 564 Quinobequin Road  
Paul and Dena David, 60 Rokeby Road  
Leon and Ina Bawer, 53 Rokeby Road  
Francis and Caren Spittal, 65 Rokeby Road  
Charles and Anne Todis, 68 Rokeby Road  
Otis B. Robinson, 8 Irving Road  
Paul and Phyllis Wiggin, 287 Waban Avenue  
J. Peter Felopulos, 86 Waban Avenue  
Christopher Anschuetz and Nancy Prince, 186 Waban Avenue  
Joseph and Terry Rothchild, 194 Waban Avenue  
J. Robert Casey and Filis M. Casey, 206 Waban Avenue  
David and Denise Weiss, 236 Waban Avenue  
David and Eunice Derogatis, 242 Waban Avenue  
Jason A. Rosenberg, 246 Walnut Street, Newtonville



Commonwealth  
of Massachusetts



DEP File #

(To be provided by DEP)

City/Town Newton

Applicant Irwin Road Realty Trust

**Notice of Intent  
Under the**

**Massachusetts Wetlands Protection Act, G.L. c. 131, §40  
and**

**Application for a Department of the Army Permit**

And Pursuant to Floodplain/Watershed Protection provisions in City of Newton  
Revised Ordinances, Section 22-22.

**Part I: General Information**

1. Location: Street Address Irwin Road  
Lot Number Assessor's Section 55, Block 38, Lots 8, 9, 10, 16, 17, 18, & 21
2. Project: Type Limited Project Description The proposed development will consist of constructing a subdivision roadway and three single family homes. The roadway of minimum subdivision standards will be constructed over a wetland and flood plain area as the only means of access to an upland area.
3. Registry: County Middlesex South Current Book 23263 & Page 177  
Certificate (If Registered Land) \_\_\_\_\_
4. Applicant Irwin Road Realty Trust Tel. (617) 323-0301  
Address c/o Hera Development Corp. P.O. Box 67141 Chestnut Hill, MA 02167
5. Property Owner Same as Applicant Tel. \_\_\_\_\_  
Address \_\_\_\_\_
6. Representative H.W. Moore Associates, Inc. Tel. (617) 357-8145  
Address 112 Shawmut Avenue Boston, MA 02118
7. a. Have the Conservation Commission and the Department's Regional Office each been sent, by certified mail or hand delivery, 2 copies of completed Notice of Intent, with supporting plans and documents?  
Yes ☒ No ☐  
b. Has the fee been submitted? ☒ Yes ☐ No  
c. Total Filing Fee Submitted \$1,475.00  
d. City/Town Share of Filing Fee \$750.00 State Share of Filing Fee \$725.00  
(sent to City/Town) (½ of fee in excess of \$25, sent to DEP)  
e. Is a brief statement attached indicating how the applicant calculated the fee? ☒ Yes ☐ No

8. Have all obtainable permits, variances and approvals required by local by-law been obtained?

Yes ☐ No ☒

Obtained:

Applied For:

Not Applied For:

Flood Plain/Watershed Protection

9. Is any portion of the site subject to a Wetlands Restriction Order pursuant to G.L. c. 131, §40A or G.L. c. 130, §105? Yes ☐ No ☒

10. List all plans and supporting documents submitted with this Notice of Intent.

Identifying

Number/Letter

Title, Date

1 Topographic Plan of Land (Existing Conditions) 7/12/93

2A, 2B, 2C Preliminary Subdivision Plan, Plan/Profile & Details 1/14/94

3 Locus Map

4 Wetlands Report

5 Project Description

6A, 6B, 6C Storm Runoff Analysis and Watershed Plan

11. Check those resource areas within which work is proposed:

(a) ☒ Buffer Zone

(b) Inland:

☐ Bank\*

☒ Bordering Vegetated Wetland\*

☐ Land Under Water Body & Waterway\*

Land Subject to Flooding,

☒ Bordering

☐ Isolated

(c) Coastal:

☐ Land Under the Ocean\*

☐ Coastal Beach\*

☐ Barrier Beach

☐ Rocky Intertidal Shore\*

☐ Land Under Salt Pond\*

☐ Fish Run\*

☐ Designated Port Area\*

☐ Coastal Dune

☐ Coastal Bank

☐ Salt Marsh\*

☐ Land Containing Shellfish\*

\* Likely to involve U.S. Army Corps of Engineers concurrent jurisdiction. See General Instructions for Completing Notice of Intent.

12. Is the wetland resource area to be altered by the proposed work located on the most recent Estimated Habitat Map (if any) of rare, "state-listed" vertebrate and invertebrate animal species occurrences provided to the conservation commission by the Natural Heritage and Endangered Species Program?

YES ☐ NO ☒  
NO MAP AVAILABLE ☐

Date printed on the Estimated Habitat Map issued  
(if any) 1992 Edition

If yes, have you completed an Appendix A and a Notice of Intent and filed them, along with supporting documentation with the Natural Heritage and Endangered Species Program by certified mail or hand delivery, so that the Program shall have received Appendix A prior to the filing of this Notice of Intent?

YES ☐ NO ☐

## Part II: Site Description

Indicate which of the following information has been provided (on a plan, in narrative description or calculations) to clearly, completely and accurately describe existing site conditions.

Identifying  
Number/Letter  
(of plan, narrative  
or calculations)

6	<u>Natural Features:</u>
4, 5	Soils
1, 3, 5	Vegetation
N/A	Topography
3, 5	Open water bodies (including ponds and lakes)
N/A	Flowing water bodies (including streams and rivers)
5	Public and private surface water and ground water supplies on or within 100 feet of site
1, 2	Maximum annual ground water elevations with dates and location of test
-	Boundaries of resource areas checked under Part I, item 11 above
-	Other
1	<u>Man-made Features:</u>
1, 6	Structures (such as buildings, piers, towers and headwalls)
N/A	Drainage and flood control facilities at the site and immediately off the site, including culverts and open channels (with inverts), dams and dikes
1	Subsurface sewage disposal systems
1	Underground utilities
1	Roadways and parking areas
1	Property boundaries, easements and rights-of-way
-	Other

## Part III: Work Description

Indicate which of the following information has been provided (on a plan, in narrative description or calculations) to clearly, completely and accurately describe work proposed within each of the resource areas checked in Part I, item 11 above.

Identifying  
Number/Letter  
(of plan, narrative  
or calculations)

2	<u>Planview and Cross Section of:</u>
2, 6	Structures (such as buildings, piers, towers and headwalls)
2	Drainage and flood control facilities, including culverts and open channels (with inverts), dams and dikes
2, 5	Subsurface sewage disposal systems & underground utilities
2, 5	Filling, dredging and excavating, indicating volume and composition of material
4	Compensatory storage areas, where required in accordance with Part III, Section 10:57 (4) of the regulations
-	Wildlife habitat restoration or replication areas
-	Other
5, 6	<u>Point Source Discharge</u>
-	Description of characteristics of discharge from point source (both closed and open channel), when point of discharge falls within resource area checked under Part I, item 11 above, as supported by standard engineering calculations, data and plans, including but not limited to the following:



1. Delineation of the drainage area contributing to the point of discharge;
2. Pre- and post-development peak run-off from the drainage area, at the point of discharge, for at least the 10-year and 100-year frequency storm;
3. Pre- and post-development rate of infiltration contributing to the resource area checked under Part I, item 11 above;
4. Estimated water quality characteristics of pre- and post-development run-off at the point of discharge.

**Part IV: Mitigating Measures**

1. Clearly, completely and accurately describe, with reference to supporting plans and calculations where necessary:
  - (a) All measures and designs proposed to meet the performance standards set forth under each resource area specified in Part II or Part III of the regulations; or
  - (b) why the presumptions set forth under each resource area specified in Part II or Part III of the regulations do not apply.

<input type="checkbox"/> Coastal      Resource Area Type: <input checked="" type="checkbox"/> Inland <b>Bordering Vegetated Wetland</b>	Identifying number or letter of support documents
<p>Wetlands lost as a result of constructing the proposed roadway will be replaced and replicated. The replacement area will be equal or greater in size, located in the same general area and have an unrestricted hydraulic connection to the same watershed. In addition, storm runoff will be mitigated to control peak rates of runoff to levels equal or lesser than those under existing conditions.</p>	4, 5, 6

<input type="checkbox"/> Coastal      Resource Area Type: <input checked="" type="checkbox"/> Inland <b>Bordering Land Subject to Flooding</b>	Identifying number or letter of support documents
<p>Potential flood storage volume displaced as a result of the proposed roadway will be compensated for. Compensatory storage will be provided by excavating an upland area down, so that incremental volume is created at each elevation up to and including the 100-year flood elevation. In addition, the compensatory storage area will have an unrestricted hydraulic connection to the same waterway and is provided for within the same reach of the river.</p>	2, 5, 6

<input type="checkbox"/> Coastal <input type="checkbox"/> Inland	Resource Area Type:	Identifying number or letter of support documents

2. Clearly, completely and accurately describe, with reference to supporting plans and calculations where necessary:

- (a) all measures and designs to regulate work within the Buffer Zone so as to ensure that said work does not alter an area specified in Part I, Section 10.02(1) (a) of these regulations; or
- (b) if work in the Buffer Zone will alter such an area, all measures and designs proposed to meet the performance standards established for the adjacent resource area specified in Part II or Part III of these regulations.

<input type="checkbox"/> Coastal <input checked="" type="checkbox"/> Inland	Resource Area Type Bordered By: 100-Foot Discretionary Zone:	Identifying number or letter of support documents
<p>Proposed work within the Buffer Zone consists of construction of the roadways, utility installation and the front portion of the house lots. Fill has been minimized to the extent possible with the extensive use of retaining walls. During construction, erosion and sedimentation controls will be implemented. Upon completion, all disturbed soils will be stabilized prior to the removal of control barriers.</p>		<p>2,5</p>

Part V: Additional Information for a Department of the Army Permit

1. COE Application No. \_\_\_\_\_ 2. \_\_\_\_\_  
(to be provided by COE) (Name of waterway)

3. Names and addresses of property owners adjoining your property:

4. Document other project alternatives (i.e., other locations and/or construction methods, particularly those that would eliminate the discharge of dredged or fill material into waters or wetlands).

5. 8½" x 11" drawings in planview and cross-section, showing the resource area and the proposed activity within the resource area. Drawings must be to scale and should be clear enough for photocopying.

Certification is required from the Division of Water Pollution Control before the Federal permit can be issued. Certification may be obtained by contacting the Division of Water Pollution Control, 1 Winter Street, Boston, Massachusetts 02108.

Where the activity will take place within the area under the Massachusetts approved Coastal Zone Management Program, the applicant certifies that his proposed activity complies with and will be conducted in a manner that is consistent with the approved program.

Information provided will be used in evaluating the application for a permit and is made a matter of public record through issuance of a public notice. Disclosure of this information is voluntary, however, if necessary information is not provided, the application cannot be processed nor can a permit be issued.

I hereby certify under the pains and penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents and supporting data are true and complete, to the best of my knowledge.

\_\_\_\_\_  
Signature of Applicant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Applicant's Representative

\_\_\_\_\_  
Date

FORM 100 (TEST)  
1 MAY 82

"Exception to ENG Form 4346 approved by HQUSACE, 6 May 1982".

"This document contains a joint Department of the Army and State of Massachusetts application for a permit to obtain permission to perform activities in United States waters. The Office of Management and Budget (OMB) has approved those questions required by the US Army Corps of Engineers. OMB Number 0702-0036 and expiration date of 30 September 1983 applies". This statement will be set in 6 point type.

NOTICE OF INTENT FEE TRANSMITTAL FORM

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DIVISION OF WETLANDS AND WATERWAYS

NOTICE OF INTENT (NOI) APPLICANT:

Name IRWIN ROAD REALTY TRUST  
c/o HERA DEVELOPMENT CORP.

Street P.O. BOX 67141

City/Town CHESTNUT HILL

State MA Zip Code 02167

Phone Number (617) 323-0301

Project Location: Street/Lot Number IRWIN ROAD

City/Town NEWTON

DEP FILE NUMBER (if available) \_\_\_\_\_

NOI FILING FEE

Total NOI Filing Fee: \$ 1,475.00

State Share of Filing Fee: \$ 725.00  
(1/2 of fee in excess of \$25.00)

City/Town Share of  
Filing Fee: \$ 750.00

DISPUTED FEE

Total Disputed Fee: \$ \_\_\_\_\_  
(as determined in Notice of  
Insufficient Fee letter from  
conservation commission)

State Share of Fee: \$ \_\_\_\_\_  
(1/2 of total disputed fee)

City/Town Share of Fee: \$ \_\_\_\_\_  
(1/2 of total disputed fee)

INSTRUCTIONS

1. Send this Fee Transmittal form with a check or money order, payable to the Commonwealth of Massachusetts, to the DEP Lock Box at:

Department of Environmental Protection  
Box 4062  
Boston, MA 02211

2. Attach a copy of this form to the Notice of Intent submitted to the local Conservation Commission.
3. Attach a copy of this form and a copy of the DEP check to each of the Notice of Intent forms submitted to the DEP regional office.

# FILING FEE CALCULATION WORKSHEET

## CATEGORY 1 \$55 PER ACTIVITY

	\$	No.
A. Existing House/residential lot (addition, deck, garage, pool, shed, or DRIVEWAY)	—	—
B. Site Preparation (removal of vegetation, excavation grading where home construction isn't proposed under this NOI)	—	—
C. Control of nuisance vegetation by removal, herbicides, etc. within a Resource Area PER LOT pursuant to 310 CMR 10.53(4)	—	—
D. Resource Area Improvement pursuant to 310 CMR 10.53 (4) other than 1C above	—	—
E. SEPTIC SYSTEMS or any part thereof/repairs, replacement, UPGRADING	—	—
F. Monitoring Wells/well	—	—
<b>TOTAL CATEGORY 1 ACTIVITIES</b>	—	—

## CATEGORY 2 \$250 PER ACTIVITY

EACH NEW single family house (SFH) INCLUDING site preparation, retention/detention basins, utilities, SEPTIC SYSTEM, roadway/driveway other than those pursuant to 310 CMR 10.53(3e) if reviewed under a SINGLE NOI	250	3
Parking lot/ ANY size	—	—
Beach Nourishment	—	—
Coastal Activities pursuant to 310 CMR 10.24 (7a-c) including 7a-Electric Generation Facilities, 7b-Public Utilities, 7c-Coastal Limited Projects including REPAIR/MAINTENANCE of EXISTING piers, buildings culverts, etc.	—	—
LIMITED PROJECT ACTIVITIES pursuant to 310 CMR 10.53 (a-d) AND 310 CMR 10.53 (f-1) per footprint	—	—
NEW agricultural/aquacultural projects	—	—
EACH WETLAND DRIVEWAY CROSSING associated with a SFH pursuant to 310 CMR 10.53(3e)	—	—
ANY point source discharge	—	—
ANY OTHER ACTIVITY not described in categories 1, 3, 4 & 5	—	—
<b>TOTAL CATEGORY 2 ACTIVITIES</b>	750	—

## CATEGORY 3 \$525 PER ACTIVITY

SITE PREPARATION for ANY development other than for a SFH INCLUDING removal of vegetation, excavation & grading when actual construction is NOT proposed under this NOI	—	—
CONSTRUCTION OF EACH BUILDING within commercial, industrial, institutional, or apartment/condo/any other type of development, ANY PART of which is in a BUFFER ZONE or RESOURCE AREA. Associated activities: site preparation retention/detention, construction, septic systems, parking lots, utilities, point source discharges, sewerage treatment	—	—

plants, roadways/driveways NOT subject to 310 CMR 10.53(3e) SHALL NOT BE SUBJECT TO ADDITIONAL FEES if said activities are reviewed under a SINGLE NOI

C. Construction of EACH ROADWAY/DRIVEWAY within the Buffer zone or Coastal Floodzone NOT reviewable under 310 CMR 10.53 (3e) and NOT associated with a SFH	—	—
D. HAZARDOUS WASTE CLEANUP (except as noted in category 4)	—	—
<b>TOTAL CATEGORY 3 ACTIVITIES</b>	—	—

## CATEGORY 4 \$725 PER ACTIVITY

A. EACH WETLAND FILLING/CROSSING LIMITED PROJECT ACCESS ROADWAY/DRIVEWAY under 310 CMR 10.53 (3e) associated with COMMERCIAL, INDUSTRIAL, INSTITUTIONAL DEVELOPMENT OR RESIDENTIAL SUBDIVISION CONSTRUCTION. (*see category 2g for SFH driveways*)	725	1
B. Flood Control Structures (construction, REPAIR, and/or modification)	—	—
C. LANDFILLS-public & private	—	—
D. SAND & GRAVEL OPERATIONS	—	—
E. NEW railroad lines or EXTENSIONS of EXISTING lines	—	—
F. Control of NUISANCE VEGETATION under 310CMR 10.53(4) other than on a SFH lot	—	—
G. BRIDGES (construction, reconstruction, expansion, maintenance) ASSOCIATED with a SFH lot	—	—
H. Raising or lowering WATER LEVELS	—	—
I. ALTERATION OF RESOURCE AREA & diversion of water associated with HAZARDOUS WASTE CLEANUP, non-mosquito control projects, or for ANY OTHER PURPOSE NOT EXPRESSLY IDENTIFIED ELSEWHERE IN THIS FEE SCHEDULE	—	—
J. DREDGING ACTIVITIES not associated with a NEW dock, pier or other structure described in category 5	—	—
<b>TOTAL CATEGORY 4 ACTIVITIES</b>	725	—

## CATEGORY 5 \$2 PER LINEAR FOOT; TOTAL FEET NOT TO BE LESS THAN \$50 NOR MORE THAN \$1000

A. Construction, reconstruction, REPAIR, or replacement of DOCKS, PIERs, REVENEMENTS, DIKES, or other engineering structures on COASTAL or INLAND RESOURCE AREAS including the placement of RIP-RAP or other material on coastal or inland resource areas	—	—
---	---	---

## TOTAL CATEGORY 5 ACTIVITIES

<b>TOTAL FILING FEE CALCULATED</b>	\$1,475
------------------------------------	---------

PERSON CALCULATING FEE SCHEDULE (Print Name)  
Robert K. Carter H.W. MOORE ASSOC., INC.

ADDRESS 112 Shawmut Ave., Boston, MA 02118

TELEPHONE NUMBER (617) 357-8145

SIGNATURE Robert K. Carter DATE 1/14/94

BAYBANK	INV. NO	AMOUNT	HERA DEVELOPMENT CORPORATION		53-235/113	9524
			P.O. Box 67141			
			Chestnut Hill, MA 02167			

PAY TO THE ORDER OF Commonwealth of Mass 4/12 19 94 \$ 725.00

Seven hundred and twenty five DOLLARS

Construction (Wet Lands)  
Lease of Easement  
Truist Real Estate Trust

[Signature]  
AUTHORIZED SIGNATURE

⑈009524⑈ ⑆011302357⑆23600145⑈

BAYBANK	INV. NO	AMOUNT	HERA DEVELOPMENT CORPORATION		53-235/113	9523
			P.O. Box 67141			
			Chestnut Hill, MA 02167			

PAY TO THE ORDER OF City of Haverford 4/12 19 94 \$ 750.00

Seven hundred and fifty DOLLARS

Harriet of Haverford  
Construction (Wet Lands)  
Abby of Haverford  
Truist Real Estate Trust

[Signature]  
AUTHORIZED SIGNATURE

⑈009523⑈ ⑆011302357⑆23600145⑈

H. W. MOORE ASSOCIATES, INC.  
112 SHAWMUT AVENUE  
BOSTON, MASS. 02118

DATE	INVOICE	AMOUNT
<u>Apr 11 65</u>	<u>Rever Rd Realty Trust</u>	

18477

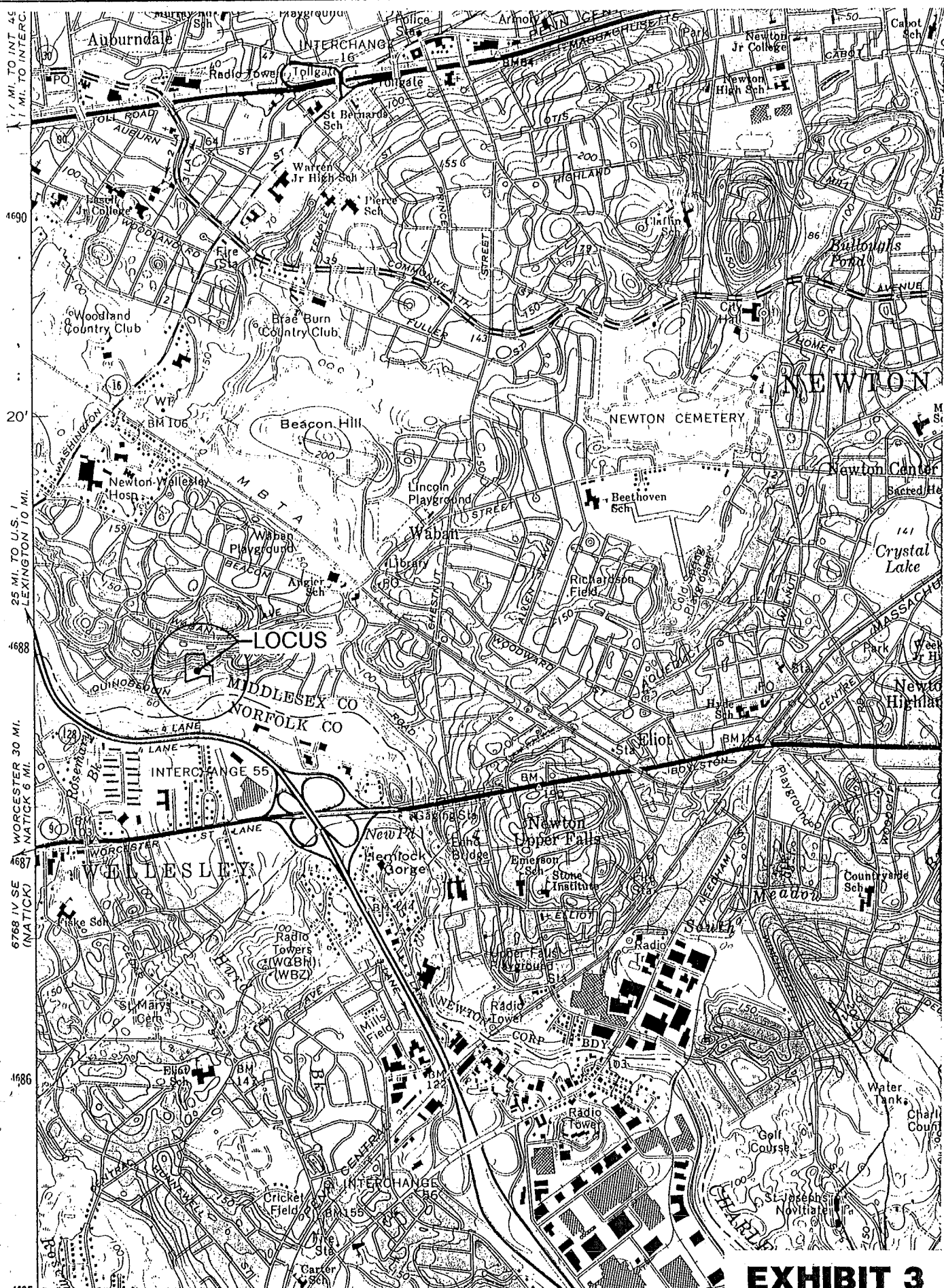
PAY <u>Fifty</u>	00/00	5-39 110
CHECK NO. <u>18477</u>	TO THE ORDER OF <u>City of Newton Planning &amp; Devel. Dept</u>	DATE <u>1-14-94</u>
		DOLLARS CHECK AMOUNT <u>50 -</u>

H. W. MOORE ASSOCIATES, INC.

THE FIRST NATIONAL BANK OF BOSTON  
BOSTON, MASS. 02110

[Signature]

⑈018477⑈ ⑆011000390⑆510⑈14920⑈



# EXHIBIT 3

LOCUS MAP  
NEWTON, MA

H.W. MOORE ASSOC., INC.  
CONSULTING ENGINEERS

SCALE:  
1" = 200'

DATE: Dec. '93

# EXHIBIT 4

## WETLAND REPORT

December 15, 1993

Prepared by: Edward Stashko, Ph.D.  
Ecologist, Wetlands Specialist  
63 Concord Road  
Westford, Ma 01886  
508 692-6257

Site: Irwin Road, Newton  
Hera Development Corporation

### **Wetland Determination**

The area between Rokeby Road and Irwin Road (paper road) was examined for the presence of wetlands that are under the jurisdiction of the Massachusetts Wetlands Protection Act (M.G.L. c.131, s.40) and its regulations (310 CMR 10.00). An inspection of the site in June, 1993 indicated that the following resource areas protected by the Act are present on the site: Bordering Land Subject to Flooding (BLSF) and Bordering Vegetated Wetlands (BVW). In addition, there is a 100 foot buffer zone to the BVW.

### **Wetland Delineation**

On two separate occasions in June, 1993, the BVW on the site were delineated according to the criteria established by the Act. The Sanford method was used to delineate the wetlands from the upland areas. When herbaceous vegetative cover was the dominant wetland plant layer, the Michener method using one meter transects was used to delineate the wetlands boundary.

The dominant wetlands on the site are a wooded/shrub swamp located at the base of a steep slope on the southern part of the property. Two culverts drain the wooded swamp and provide the hydrologic connection required by the act to classify the wetlands on the site as BVW.

The dominant vegetation in the wooded swamp are red maple, sensitive fern, cinnamon fern, red oak, American elm, American beech, American chestnut, slippery elm, tupelo, sassafras, highbush blueberry, jewelweed, elderberry, fire cherry, pokeberry, swamp azalea, nettle, poison ivy, skunk cabbage, cat briar, beggar's tick, lady's thumb, boneset, multiflora rose, winterberry, Canada mayflower, jack-in-the-pulpit, chokeberry, arrowwood, water hemlock, swamp iris, and cattail.

The BVW was delineated and the position of the wetland flags were confirmed on the site plan of the preliminary subdivision prepared by H.W. Moore and Associates.



### Limited Project Status

Under the provisions of the Act (10.53 s. 3.e), I have reviewed the plans to construct a roadway through Irwin Road to provide access to the proposed three building lots. With the maintenance of hydraulic flow under the proposed roadway, there should be no impact to the wetlands on either side of the roadway. The site will continue to have more than adequate means of dispersal of both plant propagules and fauna to maintain the same wetland characteristics that exist on the site today.

### Wetland Replication

The approximately 6,640 square feet of BVW that will be filled to construct Irwin Road will be replicated along the northern edge of the largest section of continuous wetlands on the site. The total area to be replicated is approximately 7,400 square feet. The net gain in BVW will allow for expansion of the wetlands on the site and will create a larger core area of undisturbed wetlands. The elevation of the replicated wetlands will be at the same elevation as the existing wetland ensuring that the same wetlands functions will operate in the replicated wetlands.

The replication process will be staged so as to ensure the successful transfer of existing wetland vegetation from the filled wetland into the replication site. Additional plantings will also be carried out to stabilize the soil and to provide increased habitat diversity.

Experience has shown that the best success in replicating BVW can be achieved by transplanting some of the existing stock from the area to be lost and by careful handling of the wetland soils to promote germination and sprouting from the natural bank of seeds and roots already present. The replication plan that follows will rely on this strategy along with some supplemental plantings to promote a greater habitat diversity than currently exists at the site.

The wetland replication will be carried out in accordance with the requirements of the Act (10.55 s. 4.b). The proposed wetland replication plan follows.

1. Prior to the commencement of construction activities on the site, all specifications and plans will be reviewed at the site by the contractor, site engineers, wetlands specialist and the Newton Conservation Commission. All wetland protection and replication procedures will be reviewed at this meeting.

2. All appropriate erosion and sedimentation control measures will be installed according to United States Soil Conservation Service standards. These will include the use of hay bales and/or siltation fences as needed.

3. All plants including trees, shrubs and herbaceous plants that

will be transplanted to the replication site will be identified and tagged by the wetland specialist prior to the onset of construction.

4. The replication site will be graded to the appropriate grades. Side slopes will be stabilized with plantings to prevent erosion.
5. Tagged plants from the BVW to be filled will be removed to a secure staging area and kept moist until they can be planted.
6. The organic soils from the BVW area to be filled will be transferred to the replication site. If there is any stockpiling of organic soils, they will be kept moist until they can be placed at the replication site.
7. A mixture of loam and organic material will be placed on the replication site first if additional volumes of soil are needed to bring the site up to its final grade matching the existing wetlands.
8. If needed, a one time application of a balanced fertilizer may be applied to the replication site.
9. All transplanted plants will be relocated at the replication site under the supervision of the wetland specialist. Some additional planting may be called for if natural germination and sprouting is inadequate to provide sufficient plant cover at the site. Plants selected for this supplemental planting will be native, non-invasive varieties. In addition, special attention will be given to provide plantings that increase the habitat diversity of the site. Special attention will be given to include plants that provide food resources for wildlife.
10. If needed until stabilized, all plantings will receive adequate watering.
11. The success of the replication effort will be monitored regularly and additional plantings will be done to meet the performance standard of 75% vegetative cover after two growing seasons.
12. If necessary, invasive vegetation, particularly non-native plants, will be removed from the replication site if colonization by these plants occurs.
13. Monitoring of the site will include both inspection tours and quantitative sampling. The sampling will include periodic assessments of the progress of the replication plantings. A copy of the reports including representative photographs will be provided to the Newton Conservation Commission.
14. The monitoring period will continue until 75% vegetative cover has been achieved at the replication site.

## Habitat Enhancement

The wetlands on the site will be maintained so as to preserve the hydrologic and wildlife functions of the site. Additional plantings may be conducted to provide both increased floral diversity and to enhance the existing wildlife habitat value. In particular, plants will be selected that provide seasonal food resources for wildlife including birds and that offer increased vertical diversity and structure to the wetlands. By placing the replication site in a location that is contiguous with the largest section of existing BVW, the amount of core undisturbed wetlands will be increased.

# **EXHIBIT 5**

## **PROJECT DESCRIPTION**

**IRWIN ROAD  
NEWTON, MA**

### **EXISTING SITE CONDITIONS**

The proposed project site consists of 3.18 acres of land located off the northerly side of Quinobequin Road in the Waban Village of Newton, MA. The site is bounded by four single family homes fronting on Quinobequin Road to the south, single family homes and Rokeby Road to the west, single family homes fronting on Irving Road and Waban Avenue to the north and undeveloped land and Irwin Road (a paper street) to the east. The property is primarily a wooded site with numerous hardwoods and evergreens along the upper (northerly) two-thirds of the site. The bottom (southerly) third of the site is comprised of maples, shrubs and other wetland vegetation detailed more extensively in the wetlands report. There is a cleared area that extends in from Rokeby Road that generally divides the steep uplands area from that of the lower wetlands.

### **TOPOGRAPHY AND SOIL CONDITIONS**

In general, topography is quite steep. Elevations climb some 80 feet from elevation 68 (Newton datum) in the low wetland area just east of the Rokeby Road to elevation 148 in the northwest corner of the site off Ridge Road.

From Soil Conservation Service Maps (see attached), soils are shown to consist of Hinckley loamy sand (35C) with slopes of 8 to 15 percent at the top of the hill surrounding Waban Avenue. The steep hillside is shown to consist of Windsor loamy sand (67D) with slopes in the range of 15 to 25 percent, while the toe of the hill extending to the Charles River is shown as Haven silt loam (63B) with 3 to 8 percent slopes.

### **SITE HISTORY**

The development site has a prior history of earlier applications to develop the property. From 1988 to 1990, a previous owner filed two principal applications to develop the property into a subdivision roadway with three single family homes. The first application filed proposed access of Quinobequin Road by constructing Irwin Road, an old record way never constructed (a paper street). From our understanding, this first application was denied by the Conservation Commission, because it appeared that an alternative means of access could be sought that would result in less wetland disturbance. As a result, a second application was filed for the extension of Rokeby Road into the property. This second application was eventually approved by both the Conservation Commission and the Planning Board. The approval for access over Rokeby Road was then appealed by residents of Rokeby Road and the Court ruled that there is no legal right-of-way over Rokeby Road for access to the new subdivision, and annulled the Definitive Subdivision approval granted by the Planning Board.

## PROPOSED DEVELOPMENT

The proposed development will consist of constructing two roadways, Irwin Road and Road 'A', along with three single family homes located on Road 'A'. Both roadways will be constructed to the minimum legal and practical widths acceptable to the Planning Board. In addition, retaining walls will be extensively used along the sides of the roadways to minimize to the greatest extent possible any further disruption to the wetlands.

## LIMITED PROJECT

The Wetland Protection Regulations 310 CMR 10.53(3) (e) authorizes the issuing authority to issue an Order of Conditions for "the construction and maintenance of a new roadway or driveway of minimum legal and practical width acceptable to the Planning Board, where reasonable alternative means of access from a public way to an upland area of the same owner is unavailable.". The section specifies that "Such roadway or driveway shall be constructed in a manner which does not restrict the flow of water."

Construction of a new roadway of minimal legal and practical width acceptable to the Planning Board.

The applicant believes that the new roadway is of minimal legal and practical width acceptable to the Planning Board. The street has been designed to meet the City's subdivision standard requirements for a residential street. A typical roadway cross-section is shown on the Detail Sheet of Exhibit 2. In order to further reduce the environmental impacts, waivers will be requested from the Planning Board with the submission of the Definitive Subdivision.

Reasonable alternative means of access from a public way to an upland area of the same owner is unavailable.

The 3.2 acre site abuts two streets, Irwin Road, an unconstructed paper street and Rokeby Road, a private way, terminated at the site's westerly property boundary. Based on the Court's previous decision, no access is available over Rokeby Road. Since the applicant owns no other property, the only means of access to this upland area is to construct Irwin Road. Irwin Road is a 40-foot wide unconstructed right-of-way or paper street. It extends from Quinobequin Road to Waban Avenue. Since the hillside approaching Waban Avenue climbs more than 85 feet in elevation with a slope in excess of 40 percent access from Waban Avenue is not possible. The only reasonable means of access available is from Irwin Road off of Quinobequin Road.

The Roadway shall be constructed in a manner which does not restrict the flow of water.

To allow the continued free flow of water, two storm drain culverts have been designed to provide unrestricted flow of runoff from both sides of Irwin Road. The two proposed culverts will collect storm runoff from adjacent land and it will be piped down Irwin Road and safely discharged on the south side of Quinobequin Road to the Charles River.

## IMPACTS ON RESOURCE AREAS

In order to access the upland portions of the property, Irwin Road must cross a Wetland Resource Area. As a result of filling for Irwin Road, approximately 6,640 square feet of Bordering Vegetated Wetland will be filled. A small portion of this filled wetland falls below the Charles River flood plain, and therefore, constitutes Bordering Land Subject to Flooding. The amount of potential flood storage volume displaced as a result of the construction of Irwin Road is 239 cubic feet, as shown in the attached calculations.

## MITIGATION MEASURES

Approximately 6,640 square feet of existing wetlands will be disturbed by the construction of Irwin Road. These wetlands are delineated on the Topographic Plan and Preliminary Subdivision Plan, Exhibits 1 and 2 respectively. In accordance with the General Performance Standards for Bordering Vegetated Wetlands, the wetlands displaced as a result of the roadway construction will be replaced.

Wetlands lost will be replicated adjacent to Irwin Road in the upland area between Road 'A' and the Bordering Vegetated Wetlands. The surface of the replacement area will be equal to or greater than the area lost. The total replacement area shown on the Preliminary Subdivision Plan is approximately 7,400 square feet. The surface elevation of the lost wetlands ranges from elevation 72 to 78 (Newton Datum), the surface elevation of the replacement area will also slope from elevation 72 to 78. The overall horizontal configuration and location of the replacement area, with respect to the bank, is similar to that of the lost area. The replacement area will have an unrestricted hydraulic connection to the same waterway associated with the lost area.

Re-vegetation of the replacement area will not be a difficult task, as the plant species indigenous to the area are easily transplanted and propagated. For example, many of the small trees and shrubs located within Irwin Road can be dug, balled and then planted in the replacement area. Many of the shrubs and herbaceous plants can also be divided into several smaller clumps and replanted. The sequence of operations that shall be followed to ensure the proper re-establishment of growth in the replacement area are as follows:

1. Prior to any construction activity, a meeting shall be held on-site with the Contractor, the Engineer and Wetland Consultant to review the Orders, erosion controls, construction sequence and replication procedures.
2. The wetland boundary shall be inspected and any worn or missing flags shall be replaced.
3. The roadways shall be staked by a surveyor to field locate the exact construction limits.
4. Erosion and sedimentation control barriers shall be installed along the sides of the roadways and the edge of the wetlands, as shown on the design drawings.
5. The Contractor shall strip, divide and ball all grasses, bushes and trees to be replanted. All plants must be kept well watered and/or stored in areas presently wet.
6. The Contractor shall then remove the surface layer of organic material in areas to be disturbed and stockpile this material for future use.

7. Stockpiled organic soil shall be examined to determine their percent organic content. Peat moss, peat humus and composted cow manure may have to be added to increase the organic content.
8. Excavation of the replicated wetlands and compensatory flood storage area shall commence immediately after striping the topsoil. The replacement area shall be excavated down one foot below finish grades shown on the Plan.
9. Upon completion of the excavation, the stockpiled organic material shall be evenly spread in the replicated wetlands area to a depth of 1 foot.
10. Before planting, the Contractor shall spread an organic fertilizer at the rate of 5 pounds per 100 square feet and work well into the soil. The fertilizer shall be Super Fertilizer or similar organic mixture.
11. Wetland plants shall be planted as soon as possible in accordance with the wetlands replication report.
12. Hay or straw mulch shall then be loosely spread to a uniform depth of 2 inches over the re-vegetated area to prevent soil erosion and to maintain soil moisture.
13. The Contractor shall be responsible for maintaining adequate moisture to ensure proper growth of the transplanted materials. During dry spells, the Contractor shall water the revegetated area at least once a week with an amount of water equivalent to one inch of rainfall.
14. Vegetative growth will be monitored and additional vegetation will be planted, if necessary, to achieve the 75 percent surface coverage within two growing seasons, as specified under 310 CMR 10.55.

### **COMPENSATORY FLOOD STORAGE**

Within the same wetlands lost as a result of constructing Irwin Road, there exists a small area that drops below the Charles River flood plain. This area is designated as Bordering Land Subject to Flooding under the Wetlands Protection Act and is further regulated by the City of Newton's Flood plain/Watershed Protection Ordinance; Article II, Section 22-22.

Pursuant to the Wetlands Protection Act and the City's Ordinance, the boundary of the flood plain is determined from flood profile data prepared under the National Flood Insurance Program. Based on the City's Ordinance, the flood elevation for the project site is elevation 72.2 Newton datum.

The potential flood volume displaced by Irwin Road is approximately 239 cubic feet. The volume is displaced on the fringe of the flood plain from elevation 71.7 to 72.2 Newton datum. In association with the creation of the wetland replacement area, compensatory flood storage will be provided within this same replacement area. The compensatory storage volume is provided within an existing upland area not previously used for flood storage. In accordance with the General Performance Standards for Bordering Land Subject to Flooding and by local Ordinance, the

compensatory volume is incrementally equal to or exceeds that of the theoretical volume of flood water at each elevation, up to and including the 100-year flood elevation. The volume of flood water proposed within the compensation area will be approximately 379 cubic feet. In addition, the compensatory volume will have an unrestricted hydraulic connection to the same waterway and is provided within the same reach of the river.



# SCS SOIL SURVEY

## Hartland Series

These are well drained soils which have formed in thick deposits of very fine sands and silts. The Hartland soils have a very fine sandy loam or silt loam surface soil and subsoil. They have a crumbly surface soil and a crumbly to slightly firm subsoil. They are free of stone and contain little or no gravel or sands coarser than very fine sand. In some places they have thin layers of sands or gravel at various depths. The surface soil and subsoil are moderately permeable. The permeability of the substratum is slow or moderately slow. They occur on level to moderate slopes.

## Hinckley Series

These are excessively drained soils developed in thick deposits of sands and gravel mainly from granite and gneiss. They are very sandy and gravelly. They commonly have a gravelly loamy sand surface soil and a sandy and gravelly subsoil underlain by stratified sands and gravel. Hinckley soils are loose throughout and water moves rapidly through them. They are usually stone free but may contain cobblestones and a few stones. In a few places the surface may be stony. They occur on level to very steep slopes.

## Hinesburg Series

These are well drained soils formed in a thin deposit of sand underlain by silts and very fine sands. The Hinesburg soils have a loamy sand or loamy fine sand surface soil and a loamy sand, loamy fine sand, fine sand or sand subsoil that is underlain at a depth of 24 to 36 inches by layers of silt and very fine sand interbedded with very thin layers of clay. They are stone free but in places have a few pebbles. The surface soil and subsoil are loose and crumbly and very rapidly permeable. Water soaks into these soils very rapidly. The underlying silts, very fine sands, and very thin clay layers are firm and have slow permeability. These soils occur on level to moderately steep slopes.

## Hollis Series

These are somewhat excessively drained, shallow to bedrock soils that have formed in thin deposits of glacial till derived from schistose and granitic material. They have a fine sandy loam surface soil and subsoil. The depth to bedrock is generally within 2 feet of the surface, but is deeper in places. Bedrock outcrops vary from less than 10 feet to more than 100 feet apart. In many places the soils also have a very stony or extremely stony surface. The Hollis soils occur on gentle to very steep slopes.

## Hollis-Charlton

See Hollis series and Charlton series for a description of these soils.

### Whitman Series

These are very poorly drained soils that have formed in stony glacial till. The Whitman soils have a black loamy surface soil that is high in organic matter. The surface soils may be a foot thick where they have received deposition from adjacent higher areas. They commonly have a grayish fine loam subsoil. A slowly permeable hard layer is generally present at a depth of 1½ to 2½ inches. They contain stones and boulders on and below the surface. In a few places they have been cleared of surface stone. Whitman soils occur in low-lying areas and drainageways where they receive surface runoff and seepage water from higher areas. They are saturated with water most of the year.

### Windsor Series

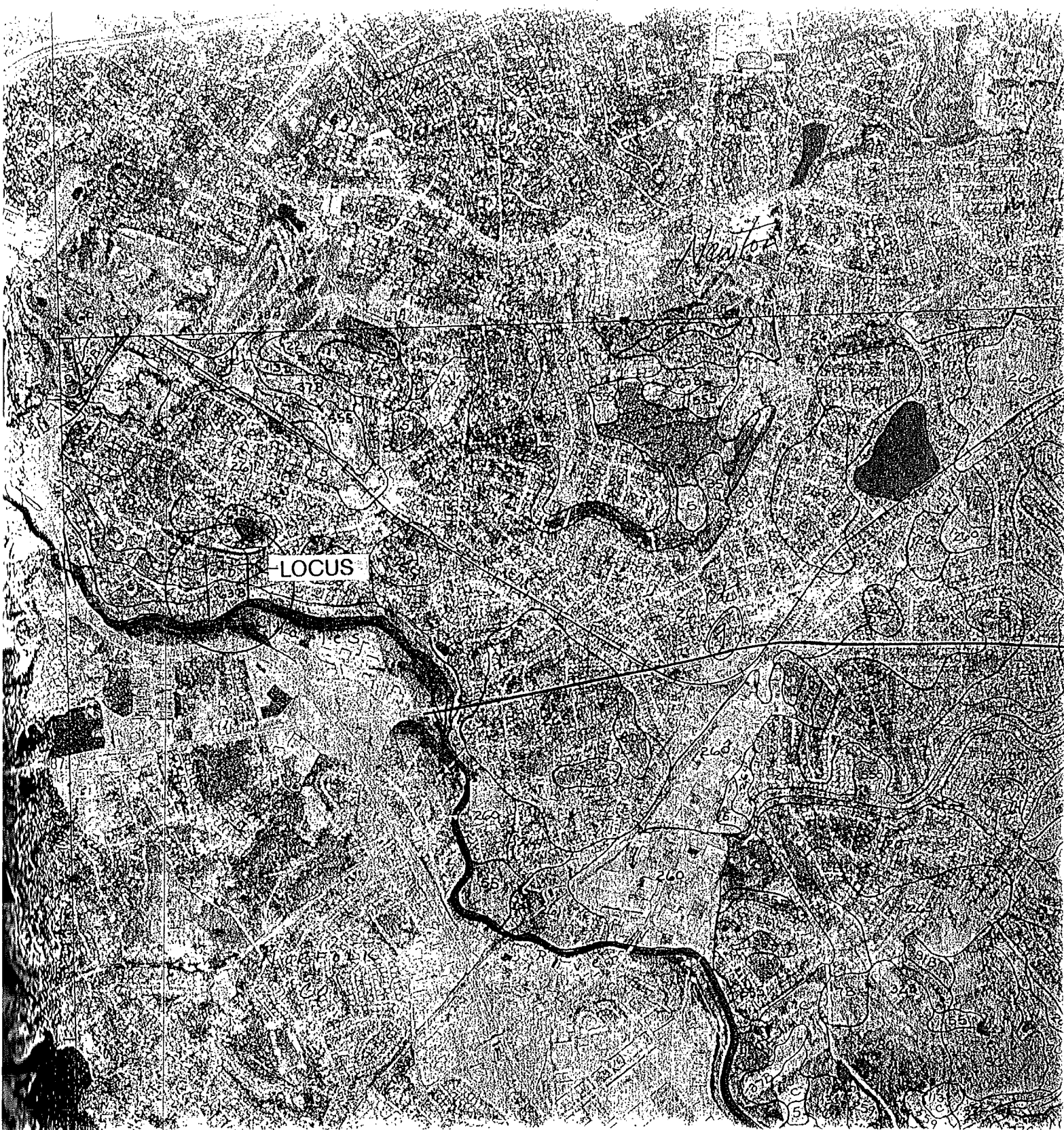
These are excessively drained soils that have formed in thick sand deposits. The Windsor soils have a loamy sand surface soil and subsoil. They are commonly free of gravel to a depth of 4 feet or more. In a few places they may have a stony surface but very few or no stones occur below the surface soil. In a few areas these soils have glacial till or sand and gravel layers below 4 feet from the surface. In some places ledge or bedrock protrudes through the surface of Windsor soils. In these places a very rocky or extremely rocky phase of Windsor is mapped. The soils are crumbly and loose and have rapid permeability and low moisture-holding capacity. The water table is generally many feet below the surface. They occur on level to very steep slopes.

### Winooski Series

These are moderately well drained soils that have formed in very fine sands and silts recently deposited by streams and rivers. The Winooski soils have a very fine sandy loam or silt loam surface soil and subsoil. Sand and gravel layers may occur below depths of 3 feet. Permeability is moderate. These soils are wet in the spring and sometimes in the late fall and winter due to a fluctuating high water table. Winooski soils occur on level slopes adjacent to rivers and streams. Those on the low-lying areas are flooded annually, but some of them on the higher areas are flooded only about once every ten years.

### Woodbridge Series

These are moderately well drained soils that have developed in compact, stony glacial till. They have a fine sandy loam surface soil and subsoil that has moderate or moderately rapid permeability. The subsoil is underlain, at about 18 inches, by a slowly permeable hardpan. Wetness during the spring and fall is caused by seepage water from adjacent land or by a high water table. During these wet seasons, or other prolonged rainy periods, the water table is usually within 1½ to 2 feet of the surface. The Woodbridge soils have a very stony or extremely stony surface and are stony below the surface soil. In some places the stones have been removed from the surface. They occur on level to moderately steep slopes.



**SCS SOIL SURVEY**

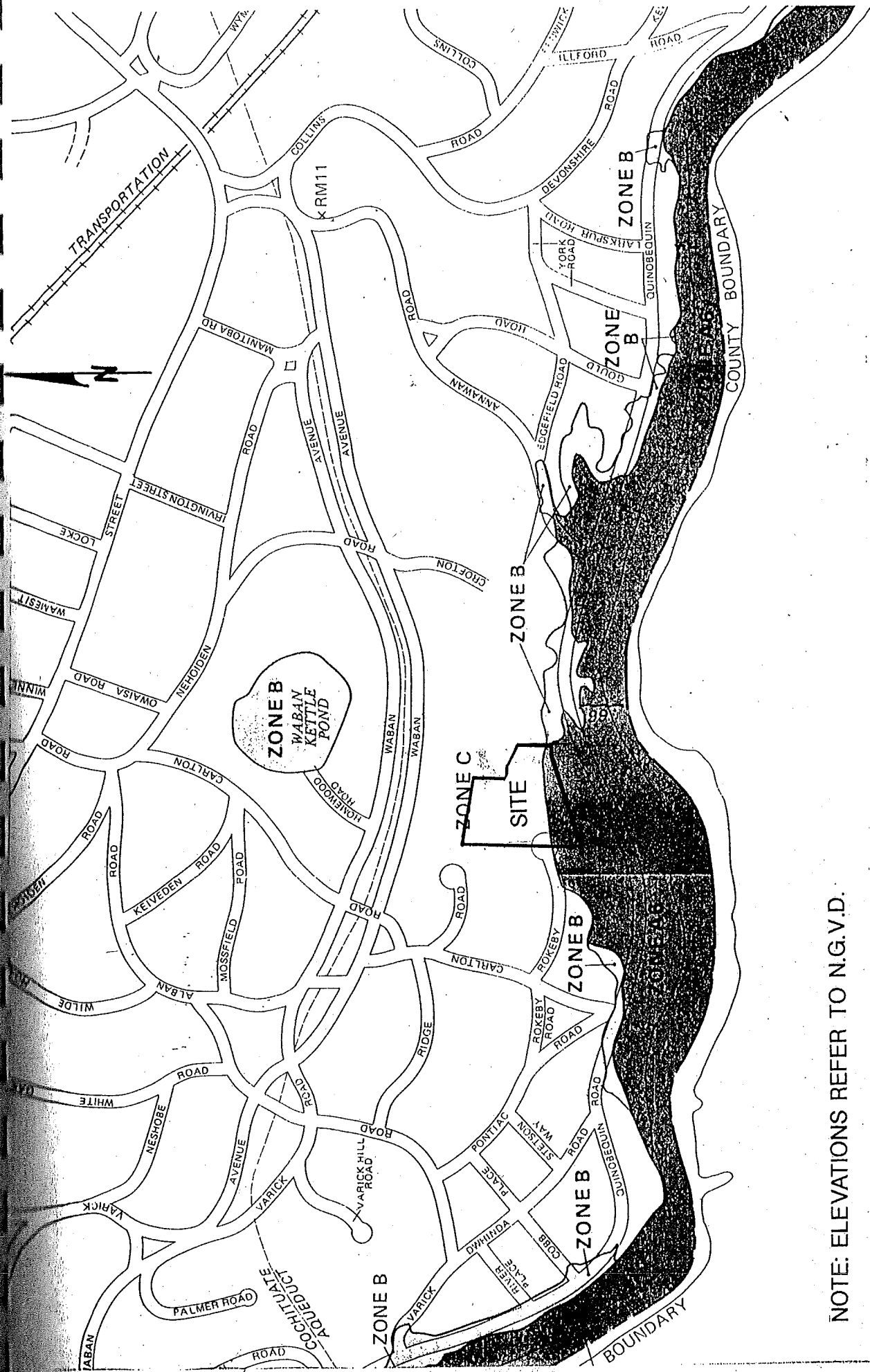
SCALE: 1:25,000

## COMPLIANCE WITH CITY OF NEWTON FLOOD PLAIN/WATERSHED ORDINANCE

In accordance with Article II Conservation Commission; Section 22-22 Flood Plain/Watershed Protection Provisions, the subdivision has been designed so as not to increase the water surface elevation of the 100-year flood at any point within the city.

As shown on the drawings and supported by the enclosed calculations, the small section of the flood plain that will be filled as a result of constructing Irwin Road will be compensated for. The compensatory storage will be a volume in excess of that lost, located in an area not presently used as flood storage, incrementally equal at each elevation to the area lost and will have an unrestricted hydraulic connection to the same waterway.

In addition, the three homes will be located outside of the flood plain area and will have the basement set well above the flood plain elevation.



NOTE: ELEVATIONS REFER TO N.G.V.D.

FLOOD INSURANCE RATE MAP  
NEWTON, MA

H.W. MOORE ASSOCIATES INC.  
CONSULTING ENGINEERS  
BOSTON, MASS.

SCALE: 1" = 500'

DATE: Dec. '93

SHEET 1 OF 1

7

Twin Road

Newton, MA

10/72/93

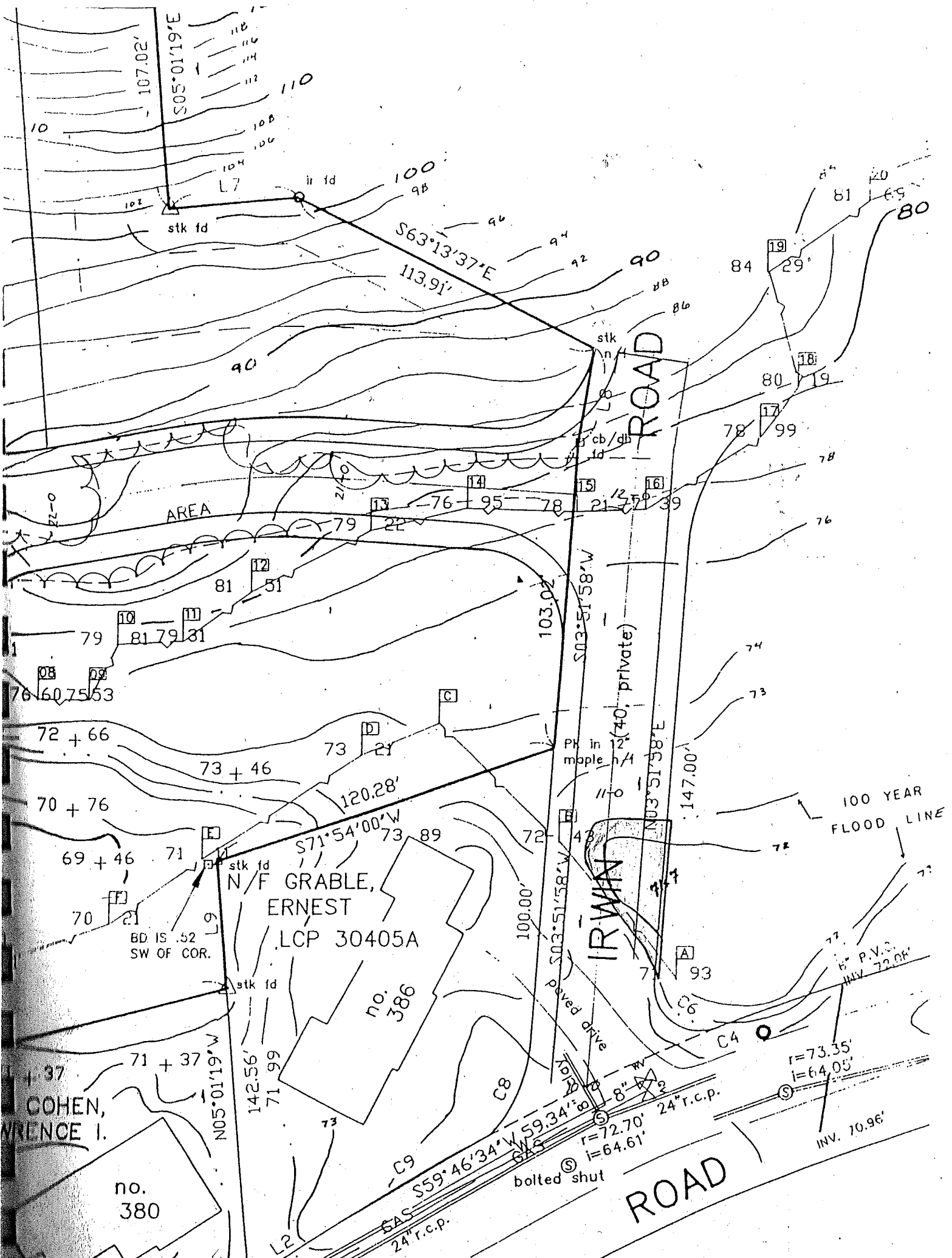
252

CHECKED BY:

Existing Flood Storage Filled In Irwin Rd.

[illegible]





# STAGE-STORAGE WORKSHEET

JOB NAME: Irwin Road

LOCATION: Newton MA

DATE: 12/28/93

BY: R. G. C.

CHECKED BY:

Proposed: Compensatory Flood Storage

[illegible]



AREA = 76,900 ± S.F.

ROKEBY  
(40' private)  
ROAD

**COMPENSATORY FLOOD  
STORAGE VOL. = 370 ± C.F.  
(EL. = 71.5-72.2)**

100 YEAR FLOOD LINE

N02°20'15"E

easement

wide

15' ±

N01°54'01"E

IN

CLAY

CLAY

CLAY

CLAY

CLAY

CLAY

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CLAY

CLAY

CLAY

CLAY

CLAY

N/F MOODY,  
GEORGE B.

WETLAND  
AREA

headwall  
inv 6" pipe = 68.03'  
no determination of outfall  
seen.

70 + 65

70 + 79

301

S75°

71

71 + 27

70 + 87

71 + 47

72 + 87

73 + 57

could not  
locate in field  
from plan

could not locate  
location from plan

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110

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# EXHIBIT 6A

## STORM RUNOFF ANALYSIS

IRWIN ROAD  
NEWTON, MA

### EXISTING HYDROLOGY

Under existing conditions, runoff occurs primarily as overland flow down the steep hillside from Waban Avenue to the on-site low-lying area to the rear of single family residences along Quinobequin Road. The overall watershed related to the project site, in general, extends from Carlton Road to the west, to the end of Crofton Road to the east and extends from Waban Avenue to the north down to Quinobequin Road to the south. This watershed outlets by two separate storm drains and, as such, the project has been divided into two watersheds for analysis purposes.

The first drain servicing the western half of the watershed (West Watershed), as shown on the enclosed watershed plan, is a 6-inch steel drain pipe which connects to an existing 12-inch concrete drain running within an easement along the westerly boundary of the project site. This west drain collects runoff which accumulates in the wetland area just south of the end of Rokeby Road. The 12-inch drain passes under Quinobequin Road and discharges directly to the Charles River. As shown on the Existing Watershed Plan (Exhibit 6B), the West Watershed consists of 8.04 acres of land, with runoff generated from single-family homes along Waban Avenue, Irving Road, Ridge Road, Rokeby Road, and a steep wooded hillside.

The second drain is a newer 6-inch PVC culvert passing under Quinobequin Road some 70 feet east of Irwin Road. This 6-inch drain discharges runoff from the eastern half of the watershed (East Watershed) and discharges to the southerly side of Quinobequin Road where runoff then flows into the Charles River. The East Watershed, which contributes runoff to the 6-inch PVC culvert consists of some 7.67 acres of land. Much of the 7.67 acres is a wooded hillside and wetland at the base of the hill, with several homes at the top of the hill along Waban Avenue.

A third storm culvert was identified in Quinobequin Road, opposite the alignment of Irwin Road. This culvert is an old 12-inch concrete pipe. The inlet end of the culvert on the northerly side of Quinobequin Road could not be recovered and is presumed to have been filled over, while the outlet end is finished with a concrete masonry headwall. Since no discharge has been observed from this pipe, it is theorized that the inlet to this 12-inch culvert was buried, possibly when the house lots along Quinobequin Road were developed. It is believed that the 6-inch PVC drain was installed to replace the loss of this 12-inch culvert and relieve the impounded water which accumulated on the north side of Quinobequin Road.

The 6-inch PVC drain, in addition to being much smaller than the former 12-inch concrete culvert, functions at a much lower efficiency because it is located some 3 feet higher in elevation and, therefore, only operates under a very low head with little "free board" before storm water overtops

Quinobequin Road. The 6-inch PVC drain is further greatly restricted by a wire screen mesh covering the inlet that undoubtedly is subject to frequent clogging from leaves and other ground litter.

## **PROPOSED HYDROLOGY**

Under proposed development conditions, the watershed areas have been analyzed to take into account the runoff-related impacts associated with the proposed development. The development of the two roadways and three single-family homes creates impacts to the hydrology by changing portions of the landscape from woodlands to pavement, roof tops and lawns. This change in the surface cover generates increases in the amount of runoff. Although these increases are minor in this particular local setting, and even negligible in the regional context of the Charles River, mitigating measures have been designed into this project. The proposed design for this development incorporates an on-site storm water detention basin at the intersection of Irwin Road and Road 'A'. This detention basin mitigates peak runoff rates such that there will be no adverse impact to off-site areas as a consequence of the proposed development.

Under proposed development conditions, Road 'A' will intercept a substantial portion of both the East and West Watersheds, as shown on the Proposed Watershed Plan (Exhibit 6C). Approximately 1.39 acres from the East Watershed and 3.19 acres from the West Watershed will be intercepted by the new subdivision Road 'A'. This intercepted watershed collects runoff from many of the homes located at the end of Ridge Road, Irving Road and the south side of Waban Avenue, as well as the new homes and Roadway 'A' proposed in this subdivision. Runoff intercepted by Road 'A' will be collected in catch basins and piped to the proposed storm water detention basin. During storm events, runoff will be temporarily stored and slowly released under very controlled conditions. In order to mitigate the subdivision's drainage impacts, the outlet from the detention basin has been sized to significantly reduce the rate of discharge to levels at or below existing conditions. The proposed 4-inch diameter controlled outlet pipe will discharge to a drainage control structure (see detail on plans) and then passes through a 12-inch outlet drain pipe capable of safely passing the 100-year storm event. The 12-inch outlet pipe from the drainage control structure will extend down Irwin Road and connect to the existing 12-inch culvert in Quinobequin Road, and discharge to the south.


As a result of intercepting runoff and restricting the discharge rates from the Controlled Watershed, the overall rate of runoff discharging from the site will be equal to or less than that previously generated from this area under existing conditions.

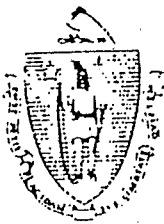
Calculations have been completed using the methodology prescribed in the U.S.D.A. Soil Conservation Service, Technical Release No. 55 Urban Hydrology for Small Watersheds. These calculations, appended hereto, predict the order of magnitude of peak runoff rates and runoff volume, along with the temporal distribution based on standard design storm events. These calculations depict full compliance with the City of Newton's Subdivision Regulations, including a 24-foot wide roadway with sidewalks on both sides and represent a conservative estimate of new impervious coverage. The following is a summary of peak runoff rates for existing and proposed conditions indicating mitigation effects of the proposed design.

Peak Runoff Rate Summary

<u>Storm Event</u>	<u>Existing Conditions</u>			<u>Proposed Conditions</u>				<u>Total</u>
	<u>Peak Runoff Rate (cfs)</u>			<u>Peak Runoff Rate (cfs)</u>				
	<u>East</u>	<u>West</u>	<u>Total</u>	<u>East</u>	<u>West</u>	<u>Controlled</u>		
10-Year	0	1	1	0	1	1 + 0.4	1	
100-Year	2	4	6	2	3	3 + 1	6	

+ ...Denotes flood routing through detention basin (inflow + outflow)

*Drainage Calculations omitted.* 



S. RUSSELL SYLVA  
Commissioner

*The Commonwealth of Massachusetts*  
*Executive Office of Environmental Affairs*  
*Department of Environmental Quality Engineering*  
*Division of Wetlands and Waterways Regulation*  
*One Winter Street, Boston 02108*

MEMORANDUM

TO: Regional Director  
Wetland Program Staff  
Office of General Counsel

FROM: Gary Clayton, Division Director *Gary Clayton*

DATE: February 29, 1988

SUBJ: WETLAND PROGRAM POLICY 88-2  
INTERPRETATION OF 310 CMR 10.53(3)(e)  
LIMITED PROJECTS: ACCESS ROADWAYS OR DRIVEWAYS

The limited project provisions of 310 CMR 10.53(3) are designed to provide the issuing authority with the discretion to allow certain work to proceed although the work may not meet the performance standards set forth in §§10.54 through 10.57. These provisions merely provide the discretion to permit these projects and the authority to impose conditions which, in addition to those set forth in the applicable portion of §10.53(3), the issuing authority determines are necessary to adequately protect the interests of the Wetlands Protection Act, G.L. c.131, §40. The issuing authority is not required to give approval to all projects filed under this provision, but should examine the facts and determine whether the project qualifies as a limited project.

The purpose of Section 10.53(3)(e), is to allow projects in which wetlands will be crossed with a new roadway to provide access to otherwise unreachable upland areas. In this Program Policy, the Department elaborates on the analysis that should be applied when determining whether a new roadway qualifies for consideration as a limited project.

In each case proposed under §10.53(3)(e), the issuing authority must determine, before approving the project under this section; (1) whether the project satisfies the general requirements stated in the regulation; (2) whether it is

appropriate to grant an exception from the provisions of Sections 10.54 through 10.57 in this case; and (3) if the project is approved, what conditions should be imposed in addition to those required by §10.53(3)(e) to adequately protect the interests of the Act.

1) A project satisfies the general requirements of a limited project roadway, if the issuing authority determines no reasonable alternative means of access from a public way to uplands of the same owner is available. For the purposes of 310 CMR 10.53(3)(e), a public way includes any road, whether publicly or privately owned, off of which access may be gained into the subject property. In making the determination regarding alternate means of access, the issuing authority may require the applicant to evaluate the reasonableness of any previously or currently available alternatives including the realignment or reconfiguration of the project, to conform with the requirements of §§10.54 through 10.57, or to minimize to the greatest extent possible disruption of wetlands. For example, the issuing authority may require the applicant to utilize upland access over an adjacent parcel of land owned by the applicant, or which he has a beneficial ownership of through a realty trust, to avoid filling of wetlands under this provision. The issuing authority may also consider whether adjacent property, which would have provided dry access to the uplands, has been sold off or built on, particularly where the applicant has had notice as described in #3 below.

For projects subject to a Planning Board's jurisdiction, the issuing authority must also determine whether the new roadway or driveway is the minimum length and width acceptable to the Planning Board. Therefore, the issuing authority may require the applicant to request the Planning Board to formally rule on revisions of the project which would protect wetlands, even if approval of the revisions would require the Planning Board to apply variance provisions that allow the Board to waive or vary its standard requirements. The issuing authority should only determine that no reasonable alternative means of access are available after the applicant has made a good faith effort to identify alternate means of access and has actually presented any reasonable alternatives to the Planning Board and received that Board's ruling. This provision does not preclude the possibility of more than one wetland crossing in certain circumstances, such as where an applicant is developing a very large parcel of land and the Planning Board has required, after a review of alternatives as discussed above, the applicant to provide multiple access points into the property.

2) Even if the general requirements of the regulation are met as described in Paragraph 1 above, the issuing authority may deny the exception for certain projects. The issuing authority should evaluate the magnitude of the wetlands impacts proposed and the significance of that particular wetland to the interests of the Act. For example, the issuing authority may permit an access proposal requiring a relatively small wetlands loss, all of which would be replicated, to gain access to a

relatively large area of uplands all of which would otherwise be inaccessible. If, however, it is particularly important to avoid alteration of this wetland in order to protect the interests of the Act, for example when the wetland: lies adjacent to or above a public water supply, particularly in an area that is the primary cone of influence to a well; is in an Area of Critical Environmental Concern; contains rare species habitat; is a Class A designated water body by the Division of Water Pollution Control; is an anadromous fish run; or has some other special environmental attribute, the issuing authority may appropriately deny the same proposal.

3) When the issuing authority decides to grant an exception for a new roadway or driveway, it must condition the work in a manner adequate to protect the interests of the Act. The conditions set forth in the General Performance Standards of §§10.54 through 10.57 should be used as guidelines. In particular, the the Department strongly endorses requiring replication of all wetlands filled and compensation for lost flood storage volume on a 1 to 1 basis, wherever practicable.

It is also recommended, where appropriate, to include a special permanent condition advising the applicant and anyone performing a title search on the property in the future, that any future project to cross wetlands to gain access to certain portions of the property will not be qualified as a limited project roadway under 310 CMR 10.53(3)(e).

## NEWTON CODE — PLANNING AND DEVELOPMENT

§ 22-22

*Sec (b)(1) cont.*  
 (e) of this section, no building or other structure shall be erected, constructed, altered, enlarged or otherwise created for any residence or other purpose; no dumping of trash, rubbish, garbage or junk or other waste materials shall be permitted; no filling, dumping, excavation, removal or transfer of gravel, sand, loam or other materials which will restrict floodwater flow or reduce floodwater storage capacity shall be permitted.

- (2) Subsection (b)(1) notwithstanding, after a public hearing the conservation commission may issue an order of conditions for the following uses in the Floodplain/Watershed Protection District:

*Sec 22(b)(2)* (a) Any building or structure for which compensatory storage is provided and for which certification is submitted by a registered professional engineer demonstrating that such building or structure shall not result in any increase in flood levels during the 100-year flood.

Compensatory storage shall mean a volume not previously used for flood storage, and shall be incrementally equal to the theoretical volume of flood water at each elevation which would be displaced by the proposed project. Such compensatory volume shall have an unrestricted hydraulic connection to the same waterway or wetland being affected by the proposed project. Further, with respect to waterways, such compensatory volume shall be provided within the same reach of the waterway.

- b) Construction, operation, and maintenance of dams and other water-control devices including temporary alteration of the water level for emergency purposes.
- c) Bridges and like structures permitting passage between lands of the same owner, except that such bridges and structures shall be constructed,

maintained, and used at the expense and risk of such owner, and shall be designed and constructed so as to minimize the effect of such structures on water storage and water flow.

- Sec 22(b)(2)* d) Parking lots, driveways, and walkways ancillary to permitted or existing uses within the district.
- e) Recreation, including golf courses, municipal, county or state parks (but not an amusement park), boating, fishing, and any other noncommercial open-air recreation uses and structures ancillary to these uses.
- f) Ancillary structures for farms, stock farms, truck gardens, nurseries, orchards, and tree farms.

- (3) No order of conditions shall be issued under paragraphs (2)(b)-(2)(f) of this subsection unless it is demonstrated to the satisfaction of the conservation commission that the cumulative effect of the proposed project, when combined with all other existing and anticipated development, will not increase the water surface elevation of the 100-year flood at any point within the city.

(c) The construction, reconstruction or enlargement of any building or structure in the Floodplain/Watershed Protection District shall also be subject to the following provisions:

- (1) All construction of residential structures shall have the lowest floor (including the basement) at or above the pertinent flood elevation established within subsection (g) hereof, and all construction of non-residential structures shall have either the lowest floor (including the basement) at or above the pertinent flood elevation of said subsection (g), or along the attendant utility and sanitary facilities shall be floodproofed, i.e. designed so that below the established flood elevation the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of



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permits and approvals issued by the inspectional services department, zoning board of appeals, conservation commission, historical commission, and historic district commissions. The land development service counter shall receive applications submitted for such permits and approvals, and promptly forward each such application to the appropriate department, board or commission. (Ord. No. X-62, 11-17-03)

**Secs. 22-6—22-19. Reserved.**

### ARTICLE II. CONSERVATION COMMISSION

#### **Sec. 22-20. Purpose, powers and duties.**

There shall be a conservation commission of seven (7) members for the protection, promotion and development of the natural resources of the city. The conservation commission may exercise, but not be limited to, any of the following powers and duties:

- (1) conduct researches into the city's natural resources and seek to coordinate the activities of unofficial bodies organized for similar purposes and may, to the extent of funds appropriated there for, advertise, prepare, print and distribute material which it deems necessary for its work;
- (2) prepare and amend a conservation and passive outdoor recreation plan which shall be, as far as possible, consistent with the comprehensive plan and with any regional plans relating to the area. Such plan shall show the nature and ownership of any open area and whether and how its use is restricted;
- (3) acquire in the name of the city, subject to the approval of the mayor and board of aldermen, by gift, purchase, grant, bequest, devise, lease or otherwise the fee or lesser interest in real property, as may be necessary to properly maintain, improve, protect or limit the future use of open spaces within the city, and may manage and control the same;
- (4) adopt rules and regulations governing the use of land and waters under its control and

prescribe penalties for any violation thereof. (Ord. No. 102, 12-15-75)

#### **Sec. 22-21. Relationship with planning and development board.**

The conservation commission shall function as an advisory body to the planning and development board on all matters affecting the natural resources of the city for the purpose of coordinating a conservation and passive outdoor recreation plan with the comprehensive plan. Nothing contained herein shall be construed to limit the powers of a conservation commission granted under Chapter 40 of the General Laws. (Ord. No. 102, 12-15-75)

#### **Sec. 22-22. Floodplain/watershed protection provisions.**

(a) There is hereby established a Floodplain/Watershed Protection District, the purpose of which is to:

- (1) assure the continuation of the natural flow patterns of watercourses within the city;
- (2) provide adequate and safe floodwater storage capacity in order to protect persons and property against increase in the hazards of flood inundation;
- (3) protect and preserve the water table and groundwater recharge areas within the city; and
- (4) allow the city to maintain compliance with the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973, and the regulations promulgated pursuant thereto.

The areas of the city included in this district are set forth in subsection (g) of this section.

(b) The provisions of this section shall take precedence over any conflicting city ordinance. Any uses in the Floodplain/Watershed Protection District, whether permitted by right or by special permit or variance, shall be subject to the following:

- (1) Except as provided in subsections (b)(2) and

**Sec. 30-16. Dimensional requirements for dormitories in residence districts.**

In all residence districts the construction, alteration, enlargement, extension or reconstruction of a building or structure as, and the use of a building, structure or land for, a dormitory providing sleeping quarters for twenty (20) or more persons, shall be further subject to the procedures established in section 30-23 and to the following conditions:

(a) *Front yard setback.* The front yard depth or the setback line from the nearest street line shall not be less than the distances established in Table 2 of section 30-15.

(b) *Side and rear yards.* The side and rear yard depths measured from the boundary lines of the lot on which the building is located shall not be less than the distances established in Table 2 of section 30-15.

(c) *Building location.* A dormitory shall not be closer to any other building on the same lot than fifty (50) feet.

(d) *Courts.* An inner court shall have a minimum dimension at least equal to twice the average height of the surrounding walls and shall have an opening at ground level with a minimum height of eighteen (18) feet and a minimum width of eighteen (18) feet to permit access to service and emergency vehicles. An outer court shall be open to the full extent of its width at least equal to one and one-half (1-1/2) times the average height of the surrounding walls and a depth no greater than its width. The area of any court which exceeds fifteen (15) percent of the "Minimum open area" required herein shall not be included in the calculation of that minimum open area.

(e) *Building height.* The height of any dormitory measured to the roof plate line shall not exceed the limits established in Table 2 of section 30-15.

(f) *Lot coverage.* The maximum percentage of the lot area which may be covered by dormitory buildings, including accessory buildings or structures, shall not exceed the limits established in Table 2 of section 30-15.

(g) *Minimum open area.* The minimum percentage of the lot area which shall be free from buildings or structures of all kinds, access streets, ways, parking areas, driveways, aisles, walkways or other constructed approaches or service areas and also free from outdoor laundry, incinerator or other building service areas shall not be less than the limits established in Table 2 of section 30-15.

**Sec. 30-17. Alteration, etc., of attached garage where below required height above grade.**

In all residential districts, no garage first erected after March 16, 1953, which is an integral part of a dwelling shall be constructed, altered, enlarged, extended or reconstructed where the entrance to such garage is less than six (6) inches above the grade established by the city engineer for the highest point of the back edge of any sidewalk upon which the lot abuts, unless either the commissioner of inspectional services and the city engineer, or the persons performing their functions, shall both certify that in their opinion the surface drainage conditions at the location are such as to minimize the danger of flooding of such garage and dwelling. The certificate of opinion required by this section may be given either by separate certificate or by endorsement upon the building permit, and shall not be withheld if in fact surface drainage at the location is adequate for the purposes above specified. No certificate of opinion given pursuant to this section shall be deemed to be a representation to any person of the accuracy of that opinion nor shall any such certificate involve the city or any officer or employee thereof in any liability to any person. (Rev. Ords. 1973, §24-19; Ord. No. 119, 3-15-76; Ord. No. 190, 12-20-76)

**Sec. 30-18. Permission for construction and operation of heliports.**

In business 5, business 1, limited manufacturing and manufacturing districts, the board of aldermen may give site plan approval and grant a special permit in accordance with the procedures in section 30-23 and section 30-24 for the location, operation and utilization of heliports subject to the following conditions: